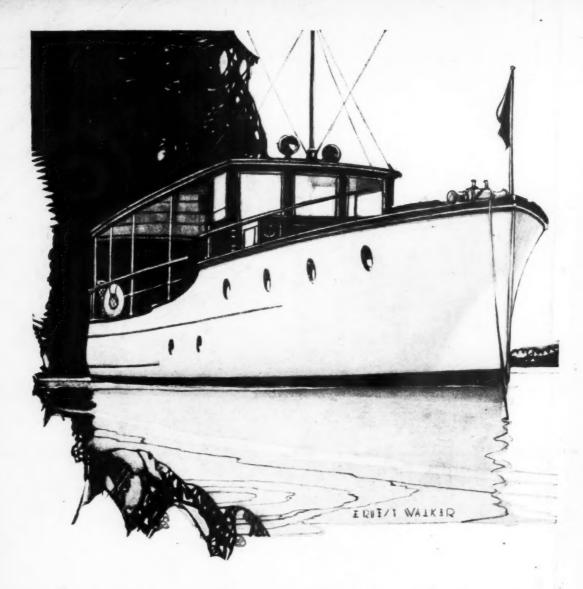
35 Cents

MOOR BOAING

July 1927



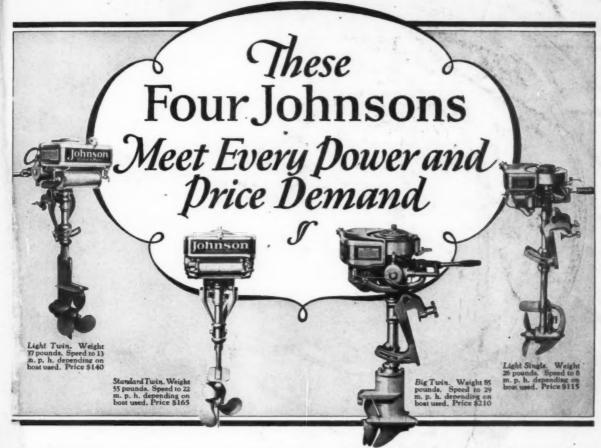
Safe---Seaworthy---Reliable

ELCO CRUISERS have been designed for safety by some of America's leading naval architects - men who have been building successful motor boats for the past 35 years. ¶ Every model has been thoroughly tested and proven in all types of service, in all kinds of waters. ¶ All of these cruisers . . . even the smaller ones . . . have made the entire coastwise run from Eastport, Maine, to Miami, Florida. And many have seen strenuous service in the waters of the Pacific. ¶ All of these points are worth considering when buying a boat. ¶ We still have a few cruisers on hand for immediate delivery. Write for catalog MG, or better still, visit Port Elco and inspect the latest standardized models.



	SEE THE 1927	ELA	LU	FLI	SET.		
Elco	Twenty-six Foot Cruiser						\$ 2,450
Elco	Thirty-four Foot Cruiser						5,750
Elco	Forty-two Foot Cruiser						11,500
Elco	Fifty Foot Cruiser						18,500
Elco	Sixty-two Foot Motor Ya	cht					37,500
	All prices aftoat at	Bay	ron	ne. !	V. J.		





JUST as no single type of automobile can suffice for every purpose of speed, power or style—likewise no one model of outboard motor can serve every boating requirement.

In the four distinct models of Johnson Motors there is a definite type for every speed, power or weight requirement—a model to meet every boating need.

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Johnson Motors are the easiest to maneuver, with a greater range of direction in steering because of an exclusive feature—Full Pivot Steering; you can keep your course against a head wind or a wind on the quarter with a Johnson.

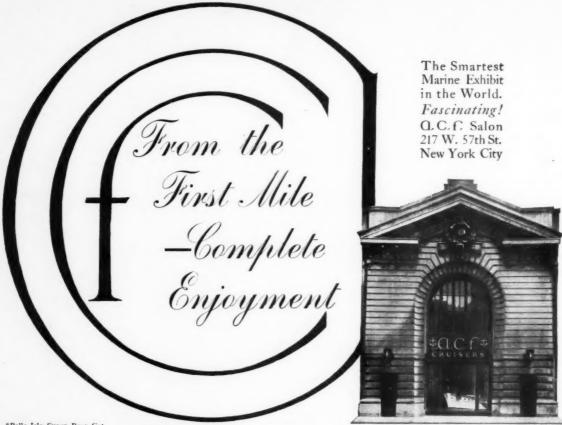
The compact simplicity—the easy start—easy operation and wonderful maneuverability of Johnson Motors, is the reason for their popularity among yacht and cruiser owners everywhere.

Sold by marine supply, hardware and sport goods dealers. Any dealer will let you take one for trial.

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*Belle Isle Super Bear Cat, Hall-Scott powered, makes 40 m. p. h. seem easy and calm as 22. Distributed solely by Q. C. f.



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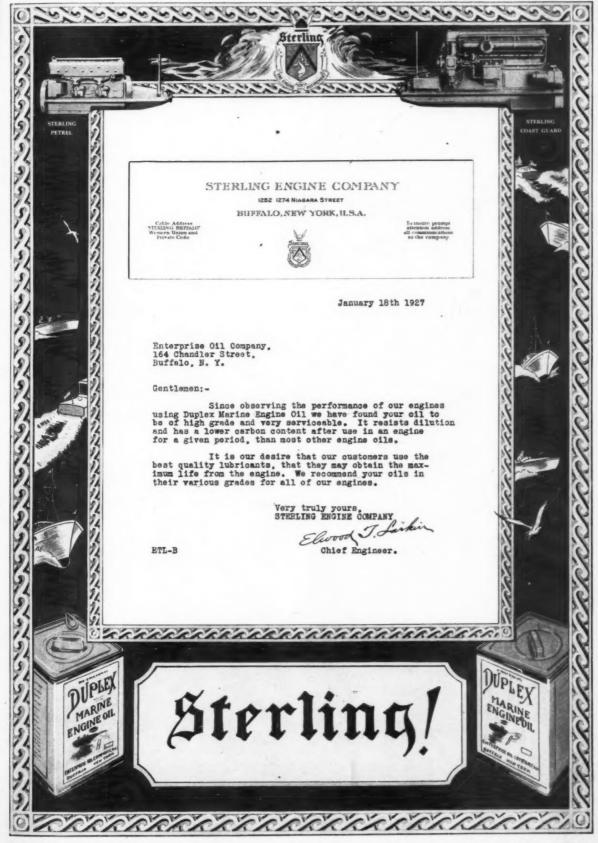
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35-ft. Raised Deck Cruiser 41-ft. Bridge Deck Cruiser 47-ft. Cabin Trunk Cruiser 50-ft. Twin Screw Cruiser 68-ft. Twin Screw Yacht



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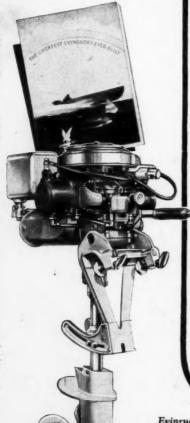


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Perhaps many of the readers of Motor Boating have already asked this question—and found Evinrude the answer. Something like this has happened, for compared to last year at this same time, Evinrude sales are

171%

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EVINRUDE

Advertising Index will be found on page 170

0% sped in Reverse

Full Engine Power Forward

%00 Speed in Reverse

DO you want such high-speed in a reverse gear that its power will pull your craft astern nearly as fast as it roars ahead? Then ask that a 90 Line Paragon Reverse Gear be the "power-passer" on that new motor you buy.

The new Paragon's name is 90 Line—because this reverse gear gives you 90% speed in reverse.

Think of the reserve behind such a reverse gear! Think of the quick stops when a quick stop is needed! Think of the easy strength at your right hand when maneuvers are needed in strong-running tides or high winds! Think of the perfection of a reverse gear that can give you 90% speed in reverse!

Think of all that when you buy a boat or an engine. See that the reverse gear is a 90 Line Paragon.

PAIR A GINI REVERSE GEARS

FULL ENGINE POWER FORWARD

DO you want all the driving strength of your high powered motor? Do you want all the speed it produces placed square in the teeth of the propeller that gives speed to the boat? Then ask that a 90 Line Paragon Reverse Gear be the "power-passer" on that new motor you buy. Then you get absolute direct drive on forward speed.

Think of the economy of such a piece of reversing machinery! Think of the higher speed made possible by a reverse gear that squeezes every last unit of power out of an engine that is ready and willing to give your propeller all the power you want if you will take it.

Your motor maker has put the power in your hand—clasp it with a 90 Line Paragon Reverse Gear. Ask that your motor come so equipped. We will give you information.

Immediate Deliveries Can Be Had on Model 5-90 of the 90 Line Paragon Reverse Gear which is Made for any 6 Cylinder Motor up to 4½" x 6" Bore and Stroke.

PARAGON GEAR WORKS 206 Cushman Street Taunton, Mass. The Open

In Every Detail— A Real Marine Magneto



Note the housing, cast in a single piece. Unaffected by vibration, it holds the intervening space between armature core and pole shoes to a prescribed clearance.

Observe the high quality ball bearings; the fine workmanship and materials in armature and breaker; the all-mica condenser.

You will see that the distributor plate and end cap fit snugly; and that cork gaskets prevent water and dust from entering.

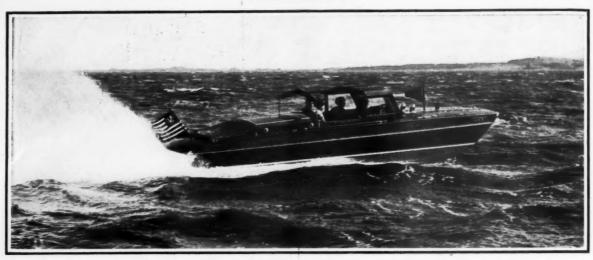
These constructional features have a telling effect on the performance of the magneto—as has the special rust-proofing treatment given to all vital parts.

EISEMANN MAGNETO CORPORATION

165 Broadway, New York
DETROIT SAN FRANCISCO CHICAG







White caps to windward-but a level, dry deck and spray all going under-foot

Talking About Speed

The younger generation likes speed—The younger generation always has—ever since the old Olympian foot races at Athens.

The Sea Sled is a very fast water motor, but it's more than that. From a social standpoint it's the fastest which will keep you safe, dry and luxurious in any weather conditions except rain.

Even in a sudden squall, the rough water all goes under-foot and appears aft in a spout of spray. You are actually riding on a semi-pneumatic cushion of air and water mixed, and the sensation is not unlike an expensive car with 130 inch wheel base on the Lincoln Highway.

There is no spray, no dust and practically no traffic that can catch you, barring an occasional rare racer. Sea Sleds are built under the Hickman patents which have produced the most sea-worthy motor-driven water craft afloat.

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23-foot—75 H. P. 28-foot—200 H. P. Open Model - \$3,150 Open Model - \$8,000 Sedan Top - - \$8,500

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Sole Licensee under Hickman U. S. Patents

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Class racer for youngsters—Keen sport for them and quiet minds for their grown-ups

Fast marine runabout

Day Cruiser for family Tender forracing yachts Harbor tender for seagoing cruisers

Exclusive features which make Sea Sled a source of pride:

Dependable as a fine car Will not roll Will not stick her nose

under
Planes on her own spray

Does not drag aft
Does not ship seas
Navigates shallow

water
The patented surface
propeller cannot
"race"

Safe and dry at speed in rough water



SEA SLED



Miss Myrtle Clark who drove a Chris Craft rundrove a Chris Craft runabout in the six mile stock
runabout race at the Massachusetts Gold Cup Regatta on Dorchester Bay.
She was the only woman
driver in the race. This
boat won the class for 26
and 28 foot, 150 h.p. stock
runabouts

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119

Vol. XL No. 1

WEST 40th STREET

NEW YORK, N. Y.

Photograph by International Newsreel

RACING DATES FOR 1927

July 2, 3, 4—Mississippi Valley Regatta, Houston, Texas. July 2, 3, 4—Ohio River Regatta, Loughery Islands, Indiana. July 2, 3, 4—Albany Yacht Club, Albany, N. Y. July 9—Block Island Race, New York Athletic Club, N. Y.
July 9, 10, 11-Beaumont Yacht Club, Beaumont, Texas.
July 16—Keystone Yacht Club, Tacony, Speedboat Cham- pionship. H. Barton Lewis Trophy.
July 17—Keystone Yacht Club, Tacony, Cruiser Race.
July 22, 23, 24—Cleveland, Ohio.
July 23—Cruising race, Chicago Y. C. to Mackinac, 318 miles.
July 29-Bayside Around Block Island, Auxiliary Race.
July 29—Craig Trophy Race from Execution to Sheepshead
Bay, around Long Island.
July 29, 31—Buffalo Launch Club.
July 31—Outboard Marathon, Colonial Y. C., Hudson River, N. Y.
August 3, 4—Handicap Cruiser Championship of America, same course as Hunt Trophy.
August 3, 4—Hunt Trophy, Execution Rocks, to Great Captain's Island, to Cornfield, and return.
August 4, 5—Express Cruisers, Sachems Head, Conn. to Greenwich, Conn.
August 6-Gold Cup Races, Greenwich, Conn.
August 7-One Mile Gold Cup, Greenwich, Conn.
August 8, 9—Tri State Y. C., Essington, Pa. to St. Michaels, Md., Cruisers and Express Cruisers.
August 11, 12, 13-St. Michaels, Maryland.
August 11, 12, 13-Thousand Islands, Alexandria Bay, N. Y.
August 19, 20-Newport, R. I., Regatta.
August 20—Delaware River Y. C., Speedboat races.
September 3, 4, 5—Detroit, Mich.
September 9-Interclub Cruiser Race, Maryland Yacht Club.
September 10, 12-Maryland Yacht Club, Baltimore, Md.
September 16, 17-Washington, D. C. National Regatta.
December 9, 10, 11-San Diego, California National Regatta.
January 20-28, 1928-Motor Boat Show, Grand Central
Palace, N. Y.
March 16, 17, 1928-Miami Beach, Florida.
March 19, 20, 21, 1928—Motor Boat Show, Miami Beach, Florida.

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Published monthly by the INTERNATIONAL MAGAZINE COMPANY, INC., at 119 West 40th Street, New York City.

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LONG ISLAND CITY, N.Y.

Makers of Marine Paints and Varnishes for 100 Years

Advertising Index will be found on page 170

Photograph, Pirie MacDonald



Alfred F. Loomis, popular sailor and writer, who is now engaged on a cruise in European waters and which we will describe in later issues of MoToR BoatinG

Skipper

Loomis

is

Cruising in Europe

A LFRED F. LOOMIS, known and loved by all of MoToR BoatinG's readers, who have read his many interesting cruise stories which have appeared in this magazine, is now in European waters on a four months' cruise which will take him over the most picturesque deep sea cruising grounds in the world. Mr. Loomis will write, in his usual entertaining and instructive manner, his cruise stories for MoToR BoatinG which we hope to begin in the August issue and continue for eight or ten months.

"Our plans for this summer's cruise are definitely worked out," says Mr. Loomis, "but they are, as usual, subject to wind, weather, and change of mind. We have secured (Continued on page 80)

THE PILGRIMS



has

All the Scandal About the Massachusetts First Annual Regatta

Esmeral III, owned by A. D. MacLeod of Los Angeles, California, win-ner of the 15-inch hydroplane class

The Starters Committee, William E. Eldridge, Arthur J. Utz and Ralph Goetchius

ELL Chap, the Pilgrims has landed.
Like all good Pilgrims they was a bit slow about taking up new ideas but when they done it, they done it good. They not only pulls off a gilt edge, gold cup Regatta but they gathers together the greatest number of notorious characters what has ever been found on one Judges' Barge. Everybody was there except Commodore Schantz.

Of course, Chap, it was perfectly evident that they was going to run everything in a high class ways, the minute I gets a letter from that active enthusiast, George H. Voter, saying as how I had been appointed a hon-

H. Voter, saying as how I had been appointed a hon-orary judge. I immediately makes up my mind to travel all the ways from Florida to Boston to see that they done everything proper-like, but the more I thinks about it, the more I doesn't like the idee of spending my own

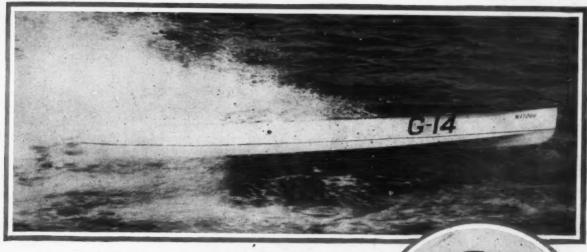
money, so I hits upon the bright solushun of writing and telling you that you could pay my expenses. It takes you about three weeks to realize that they was no chance of your getting by without having me along to tells you what to do, but as you finally done the right thing about it, I hasn't no hard feelings.

So I jumps aboard the Havana Special at Jacksonville

last Tuesday on one of them days what they advertises is ideal summer climate—about ninety-seven, and immediately walks through the train to see what they was



One of the outboard classes. One hundred and two outboards were entered in the Boston Regatta



Imp, owned by Richard F. Hoyt of New York and powered with a Wright Gold Cup motor which won the Free-for-Ali for the Massachusetts Gold Cup

aboard. In due coarse I sits down side of a brunette and says, polite and agreeable-like, "Where has you been all my life?" With this, instead of being pleased to have a nice young feller like me offer to entertain her, she jumps up and yells, "Carramba, coco cola spagetti ferrol mulligatawny Y Spatula" upon which a ferocious Cuban gentleman, he appears from nowheres, and I passes through the next

from nowheres, and I passes through the next eight cars in ten seconds flat, hiding in the men's shower bath. For the rest of the ways I confines myself to reading the Literary Diagest in the Club Car.

myself to reading the Literary Digest in the Club Car. I no sooner gets aboard the mammoth Committee Boat at Boston, the ancient steamship Massasoit (built by the indian chief of that name to take Miles Standish and his gang out fishing in 1623) than I hears you hollering to somebody out of four loud speakers what they has tied to the smokestack. This, it was a sure sign that a Regatta was going on and the only thing I doesn't understand is why you bothers with the loud speakers. They hears you over at City Point anyways. The next voices I recognizes, they was Wilbur Young, the Dodge Watercar man, and Ira Hand,—the round bottom, not the V bottom Hand—having a loud argument. When I leaves them at Miami Beach two year ago, they was arguing and it seems they hasn't finished it yet.

Then I come up on L. O. Blatchford of the Elco Company just as a sweet thing with a blank face but built to standard specifications has asked him "In the next

Frank Wigglesworth of the Race Commit-

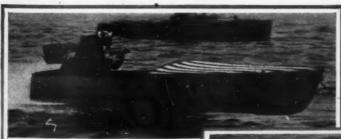
> race is they going to compete for the \$25,000 GOLD CUP?" and

Blatch has answered, serious-like, "No, little one, this race, it is for the \$10,000 silver cuspidor." I next goes over to shake hands with Odis Porter who has that there wonderful timing apparatus what he clocks them to a hundredth part of a second but as him and another feller were adjusting the chronometer with a cold chisel and a Stillson wrench, he was too busy to speak to me. Then as I starts to go up on the bridge to find out what you was yelling about, they shoots two cannons at once off'n in my face and I spends the next half hour picking wadding out of my running lights.

When I finally makes the bridge, I finds Ralph Kingsley looking as if he had lost his dog. "What's the matter?"

says I. "It was this way," says he pointing to a feller with a yachting cap and three official badges, "I goes over to that there feller and I says I wants to introduce myself. I am Kingsley of Port Elco. And he says well you have gotta get back out of the way," and so I says, "Ralph don't pay no attention to a horrid competitor like that. When we gets ashore, papa buys you a nice ripe banana" and after that he was all right, Chap.

I spends the rest of Friday talking with



Blue Bird, owned by C. H. Blue of South Bend, Indiana. Blue Bird averaged 25.27 miles per hour in the second heat of Class C Outboard Free-for-All Race

Chriscraft Cadet powered with a Chrysler engine which won first place in the 22-foot runabout class





The Race Committee and the visiting yachtsmen in charge of the Boston Regatta

Miss Massachusetts, the new 151inch hydroplane owned by L. T.
Savage of Boston, which made the
fastest lap time in the Boston Regatta. Miss Massachusetts was designed by George F. Crouch of the
Horace E. Dodge Boat Company of
Detroit. The hull was built by
George F. Lawley & Son, Inc., and
she is powered with a Miller 151inch engine. The insert below shows
L. T. Savage, owner and driver of
Miss Massachusetts

a lot of other celebrities and doesn't have no chance to watch any races but I hears lots of exhausts, seen lots of flags being hoisted, seen the clock going around, heard the guns keep going off and women screaming every time, so I knows that they must of been lots of boats running. Commodore F. R. Still President of the A. P. B. A. was there with

his friendly smile and was the only feller aboard what was not yelling. I meets S. Clyde Kyle of A. C. F. cruisers, Commodore Arthur Bobrick of the Colonial Y. C., Steve Drakeley of Enterprise Oil, Commodore Jules Heilner, Roy A. Gross of Baltimore, Commodore Jacques Thorner of Buffalo, Editor George W. Sutton, C. H. Rand of Richardson boat fame, Jack Farr that leader of engine builders—Kermath, Andrew Patterson and Gerald White of The Rudder, Howard Gannett local mainspring of the Boston Regatta, Wilfred White, Lord Kelvin's buddy who builds compass's which really gress above

point north, and finally goes ashore with Russell Gray in one of his sturdy 36 foot stock cruisers from Thomaston, Maine.

Saturday morning I gets around bright and early about ten o'clock and goes aboard a Coast Guard boat at the Boston Yacht Club. This, it makes me feel quite at home as I has been overhauled by the coast guard so many times, so I says to the officer, says I, "How is the liquor supply in Boston?" "Fair," says

he, "but we catches just enough of them so as to keep the price up where the bootleggers doesn't lose no money." "That is great," says I, and goes on to tell him of the Coast Guard officer in Florida what presented me with that elegant four-compartment bottle of cordials, and we parts great friends as he lands me on the Judges' Boat.

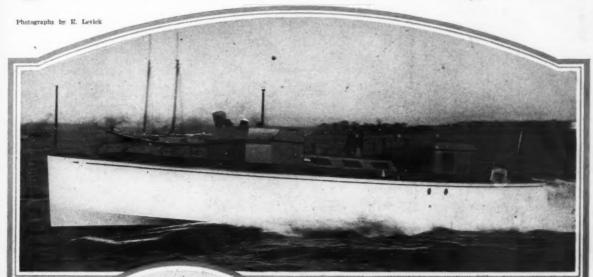
It was one of them rare June days what Longfellow or some poet once had in one of them ask-me-another books. They was a slight breeze from the northeast what wafted a remark-

the northeast what wafted a remarkable odor from Spectacle Island. On that there island. Chap, they converts ordinary garbage into toilet soap and that there awful smell, it was the part that they doesn't put into the soap. The course, it was perfectly patrolled, perfectly buoyed and they was at least five hundred yachts anchored around the edges. They was a powerful steam lighter nearby to hoist out the little fellers and for mechanical service (Continued on page 110)



The 28-foot Hacker De Luxe Dolphin, powered with a 150-horse power type G Scripp's engine, which won the second heat of the race for 26-28-foot stock runabouts

Phantom-A Ilier



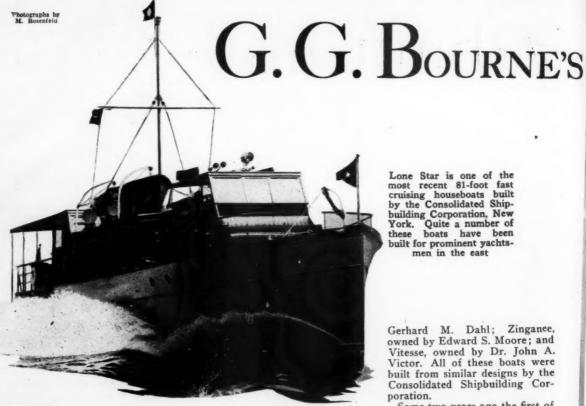


The 66-foot high speed commuting ferry which was designed by Tams & King, the New York naval architects for Patrick Grant II of Philadelphia, who will use her in fast ferry service between Philadelphia, New York, Newport and Maine

The boat is handled from a little bridge like enclosure just forward of the engine room which is arranged to shelter the helmsmen from the wind as much as possible. The engines are handled by Cory telegraphs from the bridge

The power pant in this boat is unusual, since two 550 h.p. Wright Typhoon engines are provided for a boat which is only 66 feet in length. These engines have shown a speed of 45 m.p.h., and since the boat is sturdily constructed, it should be able to maintain this speed under severe conditions. Phantom was built by H. B. Nevins, Inc., City Island, New York





Lone Star is one of the most recent 81-foot fast cruising houseboats built cruising houseboats built by the Consolidated Shipbuilding Corporation, New York. Quite a number of York, Quite a number of these boats have been built for prominent yachts-men in the east

NE of the most popular of the larger classes of boats is the famous houseboat cruiser series which was developed and built by the Consolidated Shipbuilding Corporation of Morris Heights, N. Y. Lone Star, one of the newest of these, was built for George Galt Bourne, a prominent club member of Mt. Kisco and New York. This boat was completed and left her building ways early in May, and sailed to her home anchorage at the Indian Harbor Yacht Club. She is finished along the same general lines and

interior arrangement as her sister ships Nashira, owned by R. F. Hoyt; Kegonsa, owned by

Gerhard M. Dahl; Zingance, owned by Edward S. Moore; and Vitesse, owned by Dr. John A. Victor. All of these boats were built from similar designs by the Consolidated Shipbuilding Corporation.

Some two years ago the first of these plans were developed by the Consolidated Corporation and the roominess and speed created an instant appeal to many yachtsmen. This has resulted in five duplicates being added to the original Nashira, which

was the first of the line. The striking features, of course, are a large deck house, the forward end of which is utilized as a dining saloon. Entrance forward leads to butler's pantry, service from galley being effected through a sliding panel.

The after section of the deck house

may be termed the lounge, with its built-in settee, overstuffed furniture, radio and victrola



one Star

Another Addition to the Class of Fast Cruising House Boats Developed by The Consolidated Shipbuilding Corporation and in the Service of Prominent Yachtsmen

cabinets, writing desk and gun racks.

One can readily appreciate the artistic touches of interior decoration, which may be executed in this compartment which measures almost 24 feet in length and extends the full width of the yacht,

The deck house is carpeted with a wine red imported rug. Built in furniture is covered with mulberry frieze mohair. The cretonne hangings of an overall design in variegated colors are very effective. Reading lamps with small mahogany pieces dotted here and there, add attractiveness to the entire color scheme.

A companionway on the port side leads to the guest stateroom, a double room 11 feet in length. The passageway on the starboard side leads to the owner's stateroom of equal size. Both of these rooms have connecting baths. Companionway from the owner's stateroom leads to the

after cockpit.

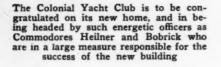


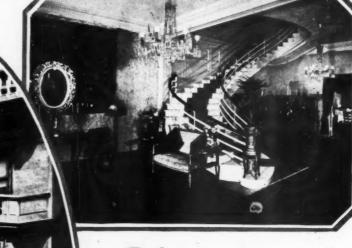
Several fine staterooms are pro-vided for the owner and guests. These are eleven feet in length and supplied with connecting bath rooms

large after deck space of 24 feet length gives very comfortable outdoor accommoda-tions. A large built-in lounge is arranged at the after end The power plant consists of two Wright-Typhoon engines, developing 550 h.p. each, which gives the boat a splendid speed of better than 29 miles per hour. The engine room is located directly below the deckhouse. Lone Star is equipped with ice machine, independent generating set, running hot and cold water, and all the equipment necessary to make the yacht a perfect cruising boat, as well as for fast day

The high speed of these boats makes them particularly attractive to many yacht owners, as they are able to reach a speed of 29 m.p.h., and can easily maintain a very comfortable cruising speed of from 25 to 26 miles, without crowding the power plants in the slightest. The unusual feature of incorporating 1100 h.p. in a hull of 81 teet in length, and giving this, at the







Mew Home for COLONIAL Y. C.

The large entrance and social hall of the new Colonial Yacht Club's city home. Mayor James J. Walker of New York attended the opening, and made an address of welcome to the members and friends who crowded the building on its opening night

A magnificent sitting room is arranged on the second floor, and is most artistically furnished in keeping with the other rooms in the building. A beautiful ladies' lounging room is also one of the attractions v s c a q ti ti o ti d

sh

The new city home of the Colonial Yacht Club at 257 Madison Avenue, New York, which was opened this spring in answer to the question as to whether or not a club must have its home at the water front. This new location is a centrally located rendezvous in the heart of the business district, and the house and facilities are to be open throughout the year. It has already developed into a center of boating activity in the city

Up and Down GLEN CANYON of the Colorado

The Conclusion of the Survey Work on the Upper Reaches of the Colorado Leaves the Author Free to Pursue Some Independent Explorations, Single Handed on the Lower Portions of the River

By Lewis R. Freeman

Author of "In the Tracks of the Trades," "Down the Yellowstone," "By Waterways to Gotham," etc., etc.

Part VIII--Down the Desert River Alone

THE charm of that desert river, the lower Colorado, which I was now setting out to boat alone after traversing several hundred miles of its upper canyons with all the way from five to a dozen companions, is as intangible as that of the desert itself—and as undeniable.

One cannot set it down and chart it with square and compass, and even a list of the things that go to make it up would not be especially illuminative.

"A sluggish iron-oxide colored stream between two brown banks, muddy bottoms covered with patches of

willows and cottonwoods, mesa rims studded with mesquite and cactus, straggles of Indian settlements, swarms of birds, traces of many animals and over all a blue dome of sky."

So might the lower Colorado be described by one who had floated down it without falling under its spell; and even one who confesses to the fascination and yields to the lure of "The Silent River" (doubly quiet to one who has battled its riotous savagery in the canyons above) will only be able to tell you of these same simple things in different words.

What impressed me as

What impressed me as being the best explanation I ever heard of The Call of the Colorado, was also the simplest. A noted French sportswoman who had travelled and hunted in many lands, was asked in Los Angeles what had impressed her most about the Colorado Delta country from which she had just returned.

"The nearness of Nature," she replied without hesitation; "the clearness of the voice of the big outdoors. In most of the "ild places

of the world Nature treats you as an outsider. Here she comes to you and takes you in her arms. I shall never rest content until I can pay it another visit."

That part of the Colorado between Boulder Canyon

That part of the Colorado between Boulder Canyon and Yuma is one of the safest streams in the world to boat. There is danger lurking at every bend in the canyons above, while the threading of the blind sloughs of the delta below Yuma is beset with many baffling problems, as my own adventures and misadventures will make plain later. But just about anyone capable of keeping from drowning in a swimming pool is fit to boat from the Needles to Yuma. The fact

from the Needles to Yuma. The fact that both are railway points makes these two towns especially convenient for starting from and finishing at. There is not a rapid worthy of the

name in the whole distance, ranches are not infrequent and the Indians along the way are as guiltless of treachery as of the use of

The most comfortable and convenient boats for this three hundred-mile downstream drift are the square-ended, box-like scows which can be knocked together at Needles for about a dollar and a half per foot of length. A twenty-foot scow of six-foot beam will hold a load of a ton and give room for three or four men to sleep. Oars are used merely to keep it in the current or to make a landing; the river itself does the work. One can float at night in such a craft without risk, though he will have to rouse every half hour or so to pull it out of an eddy or push it off a bar.

Because I was planning to cover the Needles-Yuma stretch as rapidly as pos-



A street in the Indian village of Walpi on the lower Colorado

sible in order to have more time for working on down through the mazes of the delta where it was reported the Colorado had completely lost itself since being dammed back from the Imperial Valley the previous

summer, I ordered a skiff instead of a scow and added an ancient outboard motor to kick it along. Low, narrow and sharp-bowed, it was of comfortable size for one man and his outfit. Considering that it was knocked together in half a day, it was also fairly staunch and steady. Staunch and steady as a one-man boat, I mean. When, as transpired later, it was called upon to carry three men (two of them over-sized) and their belongings, it was found lacking in a number of particulars.

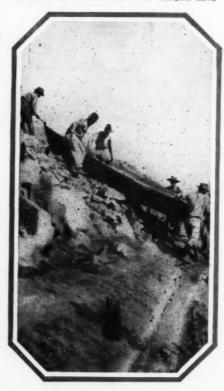
a number of particulars.

Most of the early exploration of the Southwest took place among on or from the lower Colorado, upon which I was about to embark. far as is known, the first white man to set foot upon its banks was Hernado de Alarcon of Coronado's army. doughty captain was sent from a post in what is now Sonora. Mexico, to go northward with a band of his troopers and bring back reports as to the mineral and agricultural wealth of the country he traversed, with a view to determining whether or not it was of sufficient value to conquer and add to the possessions of the Spanish Empire.

At that time it was supposed that the peninsula of Lower California was an island. In fact, maps issued as late as the end of the eighteenth century showed it as such. Alarcon's orders were to proceed up the coast in ships to the head of this island, and to force his

way inland from there as far as he deemed it advisable to proceed in the face of the Indian opposition he was expected to meet.

Photographs by the author and U. S. Geological Survey



Lowering the boat to the river at the head of Pescadino Cut

The Eagle Rock Dam Site above Cottonwood Valley

The ships provided to convey Alarcon sailed without difficulty to near the head of the Gulf, but there, although much open water showed beyond, they were stopped by a long line of sand bars. Still believing that a passage from the Pacific ran to the Gulf, the captain disembarked and traveled inland for several days. The unpromising nature of the country soon turned him back to his ships, however, where small boats were procured to continue the exploration by water.

exploration by water.

It was in August, 1740, that the expedition first learned that the Gulf narrowed to a river, the downward current with its load of mud giving ample evidence of the fact even before the water ceased to be salty. Progress was very slow. The current was too swift for rowing, and towing from the banks was impracticable because the great river was flooded and the bordering bot-

toms under water.

At last the persistent Spaniards worried along to a point well above the mouth of the Gila. The mouth of what they described as "a considerable stream from the east" is the only definitely identifiable point in Alarcon's record. Somewhere above the Gila the party was so beset by Indians that, in view of the barrenness of the surrounding country, it was deemed useless to fight longer against a current that steadily increased in force.

After erecting crosses and rock piles to mark the graves of the men he had lost in repelling the Indians, Alarcon gave the signal to push off on the return voyage. The ships were reached in a very short time compared with that taken in covering the same distance against

the flood.



In his absence Alarcon's ships had been nearly destroyed by a great roaring wave that assailed them from the seaward direction. Ulloa, who had preceded Alarcon but without reaching the mouth of Colorado, had also narrowly avoided disaster from the same cause. This wave was, of course, the famous tidal bore which has taken its fling at every navigator visiting the head of the Gulf of California. Of the way of a bore with a boat, I also, was to have graphic illustration before the present voyage was over.

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A few years later an expedition under Melchior Diaz fared somewhat better than Alarcon, in that they made friends with the Indians and utilized them in

towing their boats against the current. Alarcon, by representing himself to the aborigines as a God of the Sun, had had some help from them along the lower river, but the fiction appears to have lost its magic when the time came to breast the swifter current above the Gila.

Diaz claims to have found a cairn marked as the highest point reached by his predecessor, and to have pushed beyond it enough of Spanish leagues to have carried him to the vicinity of the present site of Needles, from which I was about to push off.

The imaginative Diaz claimed that the Indians who towed his boats were so strong that one of them easily carried a log that six of his own men had been unable to lift. He also asserted that each



A natural

bridge in the

right hand wall

of Marble Canyon

Nojuno Dam was portaged on a push cart

Indian carried a burning log with him for warmth during the chill hours of the winter days. Evidently more impressed by these peri-patetic furnaces than by the Samsonian feats of the giants, Diaz gave the name of Rio del Tison (firebrand) to a river the more spiritually inclined Alarcon had already christened El Buena Gui—Good Guidance. To a stream that was destined to have a half dozen names before it settled to one, two or three more or less at the discovery stage made little difference.

In 1781 two missions were founded on the California side of the Colorado—La Purisima Conception near the present site of Fort Yuma and San Pablo, a hundred miles farther up stream. Both were destroyed by the Yuma Indians in March, 1782, when all connected with them were massacred.

(Continued on page 72)



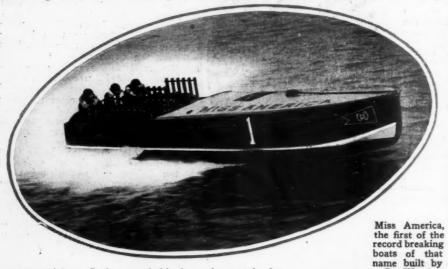
They Hold ALL RECORDS

Gar Wood's Fleet of Miss Americas Have Consistently Defended Their Championship Titles for Many Years and Are the Undefeated Speed Champions of the World

ANY claims are made from time to time as to the wonderful speed ability of this boat or that boat. Strange to say, these marvelous performances never seem to materialize under the searching eyes of competent timers and accurate stop watches. Most often these alleged records are made in great secrecy, and with-

As far back as 1914, attempts were being made at the hydroplane speed record, and in that year the little hydroplane Baby Speed Demon established a record of 51.726 m.p.h., which is the result of three trials in each direction with and against the current. The next year another hydroplane, Tech Jr., raised this record about

two miles per hour, and established a new high established a new high mark of 53.70. The succeeding year, Miss Minneapolis, a hydroplane built in that Western city by a syndicate of yachtsmen, succeeded in boosting the record another notch, and raised it to 61.083 m.p.h. The next attempt in the following year brought Gar Wood into the field with his hydroplane Miss Detroit II, and while the boost in the record was not very great, he did succeed in driving it up to 61.724 miles. All these trials were made under precise and carefully supervised conditions, and



out supervision. It is remarkable how the speed of a boat will fall off when it is tried on an accurate course against precise stop watches. Somehow or other, from five to ten miles per hour seem to disappear quite unaccountably.

One yachtsman, however, has had no fear of stop watches and open trials, and to his credit stand all high speed motor boat records made in the world. This yachts...an is none other than Gar Wood of Detroit. who with his family of Miss Americas, has established and held the record for high speed since 1920. Many costly boats have been built in the effort to wrest these speed laurels from Gar Wood. None have been successful, and the chances are that he will continue to be the world's speed champion for many years to come.

A close finish between Miss America IV and Miss America V, in which these boats did better than 80 m.p.h. on salt water

Gar Wood

timed with the most modern devices available. There can be no question as to their accuracy. In still another year, the hydroplane Whip-po' Will Jr., owned and driven by the late Commo dore A. L. Judson, succeeded in driv-ing the record still few miles up the ladder. He established a mark of 63 .-498 m.p.h.

During 1919 no contests were held, and it was not until 1920 that Miss America was constructed and tried out.

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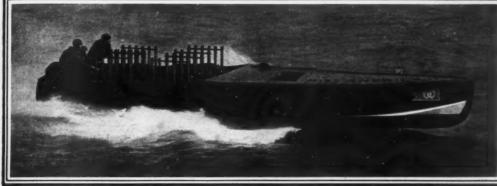
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Miss America III, built to defend the championship against a French challenger



Miss America II, the holder of the record speed of 80.567 m.p.h. since 1920

In this year she swept everything before her at the Regatta in Detroit and succeeded in winning not only the American Power Boat Association Gold Challenge Cup, but established new records for the fastest lap, and the fastest heat in the race. In the tests for the one mile championship, she was successful in establishing a new record for all time of 76.655 m.p.h., as the mean of six one mile runs, and established a best mile down stream at the rate of 77.698 m.p.h. This record started the series of record breaking attempts by Gar Wood and the famous series of Miss Americas.

The outstanding attempt at a record was made in the succeeding year 1921. In this year, the famous English hydroplane Maple Leaf VII, owned by Sir Mackay Edgar, challenged for the British International Trophy, and this led to the construction of Miss America II. Unfortunately the British boat did not perform well, so that it never had a chance to show its possibilities as a speed craft. Gar Wood's boat managed to win this famous trophy without serious competition. It was in the mile trials which followed this contest that the new rec-ord which has stood unchanged since then was made. Miss America II in the mile trials succeeded in attaining the speed of 81.577 m.p.h. in the best of the six trials made. The mean of the six trials was found to be 80.567 m.p.h., and no attacks on this record have approached

it in any way since then. In the following years very few attempts were made at this record, and in competition during

926 for the British International Trophy, in which the which rench chalengeralso ailed to show any marvelous speeds, Miss America III was only driven to the extent of 63.43 n.p.h.

A more recent trial was made early this year during the Regatta at Miami Beach in Florida. As a result of these trials, which was the (Continued on page 70)



A big fleet of visiting yachts in the pretty harbor at Christmas Cove in Maine

HUCK SAYS

ruise



STAINE this Summer for an IDEAL VACATION

come in, since the feller with a moderate salary has found that he can purchase a seaworthy, floating hotel for the price of a car, since a lot of people has got sick of being bawled out by traffic cops every Sunday and has taken to the peace and freedom of the water, a whole new generation of yachtsmen has sprung These here yachtsmen have done a lot of week-end stuff around home waters, they has learned to handle their boats pretty good, they is just about primed to learn

With this idea in view, I hereby introduces them to the coast of Maine. I warrants that they is ten thousand

Bay, good for around ten knots, with berths for three or four people and suitable cooking gear, whose owners get a two weeks' vacation in the summer, and who have never even considered venturing beyond Cape Cod, thinking that the Maine coast was just this side of the North Pole. Well it isn't. It is within reach. Its shoreline offers the most wonderful summer cruising ground for the small (as well as the large) motor boat, in the world, with snug harbors every few miles, supplies available every night, and with every form of entertainment at hand from mountain climbing to petting.

I hastens to say that I owns no real estate in Maine and isn't trying to put acrost no subdivision. I have however cruised the Maine coast for nineteen summers, in everything from a twentyfive foot 1907 model express cruiser what had a five h.p. engine and went six knots when the wind and tide was with her, to a hundred foot schooner yacht. If you has a family, there you will find rest for yourself and health for the wife and ten children. If you is artistic and loves nature, you finds mountains falling into the blue sea, the murmur of virgin forests mingling their music with the crash of the breakers. If you is thirsty, you finds reliable bootleggers in every port; men of long ex-perience—bearing in mind that Maine had a dry section in its constitution since shortly after Columbus discovers America. If you is single and is going on a tom-cat cruise, you finds all varieties of sweet things at every port, long and short, light and dark, thick and thin summer girls on vacation, whose only complaint it is the small male population, and who sits on the dock like Loreleis, wishing that some good looking yachtsman would come in to take them to the dance tonight.



Owls Head Light is on a prominent point and easily recognized



The following is a round-trip itinerary, covering a two weeks' vacation. They is hundreds of other places you can stop at what is just as nice, but I has spaced these ports so a ten knot boat can make every run by daylight. If your boat it makes more speed, you will get in earlier in the afternoon. If you can spare another week, you can take it easier, but you can make these runs in your thirty foot cabin cruiser, with a set of charts of the coast that doesn't cost but a few dollars, a good compass; and a year's experience on the water, with perfect safety.

a year's experience on the water, with perfect safety. First Day: (Saturday.) New York, or your home port, to Port Jefferson, Long Island. If you cannot get away until noon, you may reach there a little after dark, but you probably has been there before and knows that it is a simple place to get into at night.

a simple place to get into at night.

Second Day: (Sunday.) Newport, Rhode Island. This run may be a bit rough if the wind is from the north or east. If it should blow too strong for you, put into Shelter Island at the end of Long Island, or Block Island or the Harbor of Refuge at Point Judich. Newport is not much fun for the small boat yachtsman, but they is all kinds of supplies on hand.

Third Day: (Monday). Marblehead, Massachusetts. You finds this one of the best runs of the trip. Up Buzzards Bay in protected water to the Cape Cod Canal. The toll boat comes out to collect from you at the entrance. The tolls isn't heavy for small boats but terrible for big ones. No locks in the Canal but lots of current. Don't try to stop with the current with you, as you skids. From the Cape Cod Bay end of the canal,

you can lay a course straight through to Marblehead or you can follow the shore, which isn't much longer, until you reach Minots Light off Scituate, thence to the Boston Light vessel, thence to Marblehead Light. In case of bad weather, they is Plymouth, Scituate and Boston Harbors to put into. The wind is usually SW, off shore and the running is easy. At Marblehead you only harbor in the finds . the United States devoted exclusively to yachts. They is hundreds of them at anchor off the Eastern, Corinthian and Boston Yacht Clubs.

Fourth Day: (Tuesday.) To York Harbor, Maine. This is an easy run down back of Bakers Island, along the Manchester, Beverly and Magnolia shores and into Gloucester Harbor inside of an hour. Boats drawing over six

feet have to run out around Cape Ann, but your motor boat enters the Squam Canal at the head of Gloucester Harbor. You cannot see where it opens until you are nearly on top of it. The Squam Canal (no tolls) and river is six miles long. Leave the red dolphins on your port bow and the black on your starboard and again go out to sea on the North side of Cape Ann at Annisquam. Lay a course inside the Isles of Shoals for York Ledge. Away off to port, nearly on the horizon are Newburyport, Mass., Portsmouth and Little Harbor, N. H. In case of a blow, you can put into these, or the Isles of Shoals, but you better keep on to York unless it comes up heavy northeast (which it seldom does in the summertime). York Harbor, it is a summer colony, with a big



Whitehead at the entrance of Muscle Ridge Channel

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The entrance to Quohog Bay on the Maine Coast



hotel. The water is deep and they is a strong current. Use your heavy anchor and lots of line and let her sail around when the tide runs, it won't do no harm.

Fifth Day: (Wednesday.) Boothbay, Maine. isn't afraid of getting out of sight of land (which it is something you can brag about when you gets back), lay your course from York Harbor entrance to the whistle buoy of Seguin Island, about six hours' run. If you rather stay nearer shore, keep along the coast by Cape Neddick, Kennebunkport, Cape Porpoise (a good shelter) and Biddeford Pool until you reach Cape Elizabeth (near Portland) where you can lay your course across to the entrance to the Kennebec River, back of Seguin Island. You are now in God's country. The air, it will smell good. The sea gulls bathes regular and even sing. A few miles more, being careful that you doesn't run down

trance of Fox Island Thorofare. Bold wooded shores, summer estates, narrow passages, well buoyed and never less than twenty feet of water under your keel. By North Haven, out into East Penobscot Bay, once more into landlocked channels of Deer Island Thorofare, past Stonington where the giant granite blocks for the Cathedral in New York are being quarried. Perhaps a stop to buy some tender live lobsters what taste entirely different from them what you get at home. Acrost Eggo-moggin Beach, through York Passage, out into Blue Hill Bay with Mt. Desert now in its full grandeur, by the tiny lighthouse of Bass Harbor Head where the light keeper will run out and ring his great bell if you gives him three blasts of the whistle. A few miles more and you turns north and aims for the mountains. As you reaches their shores, abreast Bear Island Light, Northeast Har-



the "Sisters" or Glovers Rock which are well marked, and you drops your hook in Boothbay Harbor along the middle of the afternoon. Here you walks through the piney woods for the first time, hears the original "Huck Says" language, gossips with the old boy who is general manager of the Boothbay Yacht Club, or admiral or something and turns in for a good night's sleep.

Sixth Days (Thursday) Candon Meioc. To the content of the conte

Sixth Day: (Thursday.) Camden, Maine. If this run doesn't give you a thrill up and down your spine, you better go back to your night club in New York, as you is beyond the call of the open and the poetry of nature. Study your chart and you sees where to go; it is hard to tell you on paper. Work out through the islands to the east'ard, everything plainly buoyed, then nearly an hour's run across to Eastern Egg Rock passage passing Pemaquid Point and looking up Muscongus Bay, then through the Davis Islands passage, past Port Clyde, the "Brothers," leaving Mosquito Island to port, to Whitehead Light and up through the wonderful inside passage of Muscle Ridge Channel, past Owls Head Light (the sweetest spot on the coast), up West Penobscot Bay, with the great Camden Mountains rearing up to the sky, past Rockland and Rockport and into that gem of gems, Camden Harbor, at the base of Mt. Batti. Tie up to the comfortable Camden Yacht Club, a gift from the skip-per of the Lyndonia—Cyrus H. K. Curtis, where you will find both courtesy and supplies. Pretty fair licker, it always could be bought at the tailor shop on the left. Good markets, a dentist who will pull your teeth for fifty cents each and throw in a tumbler full of State-O-Maine whiskey free in place of gas, n'everything

Seventh Day: (Friday.) Northeast Harbor, Mt. Des-This it is not over a five hour run, entirely through sheltered water, with the Camden Mountains fading astern and the peaks of Mt. Desert rising up ahead. Run across West Penobscot Bay to the bell buoy at the enbor opens its arms. You again drops anchor and finds nature and aristocrocy joined; with beautiful summer estates nestling at the foot of mountains.

You can spend the rest of the summer around Mt. Desert and not scratch the surface. If you prefers to say you has been to Bar Harbor, you can make another half hour's run to that port instead if you wishes, but the anchorage at Bar Harbor it is awful for small boats and you rolls all night. Instead, you easily gets a bus that evening from Northeast and sees Bar Harbor in greater comfort. If you has the fime, stop another day and climb a mountain. Most of the Island, it is a National Park. The trails are well marked and you has your choice of high hills that takes you an hour to climb or Green Mountain what takes you all day. I recommends if your time is short to follow tomorrows schedule.

Eighth Day: (Saturday.) Somes Sound. Sargent Mountain and Somesville. This sounds like a lot, but it is only six miles running and about eight walking. Run up Somes Sound where there are mountains on each side, and a narrow straight, hundreds of feet deep, and where if the air is still and you shout "Hello" the echo will come back to you from every direction. Anchor in Sargents Cove on the easterly side and row ashore. Take your lunches with you. Walk through to the road, turn right until you come to a little stone chapel almost hid-den in the trees. The trail up Sargent Mountain turns in here to the left. Look out or you will pass it. If you is a Tyrolean Mountaineer, it takes you about half an hour to reach the summit. If you is a tired business man, it takes you over an hour. You passes the Giants Slide and drinks delicious spring water. From the top, you surveys the world. If it is clear, you can see West Quoddy Head, the tip end of the United States, and sixty miles of coast in between. Devour your lunch.

Return to your boat, and in (Continued on page 100)



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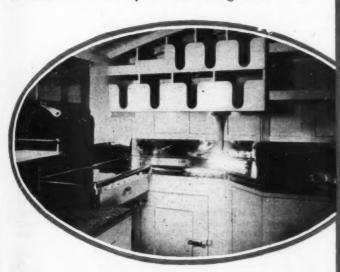
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New York Harbor Welcomes Colonel Lindbergh

THE Largest Sturdy Stock Cruisers With a Surprising 38 JOOTER

Sturdy Stock Cruisers With a Surprising Amount of Room Which Are Available in Several Choices of Cabin Arrangement



A corner of the big galley in the Matthews 38 foot single cabin cruiser, which will show the convenient working spaces available for the preparation of home like meals, which can be enjoyed in the dining saloon adjoining. The galley contains a large three burner stove, in a metal lined compartment, and also a tidy enamel sink

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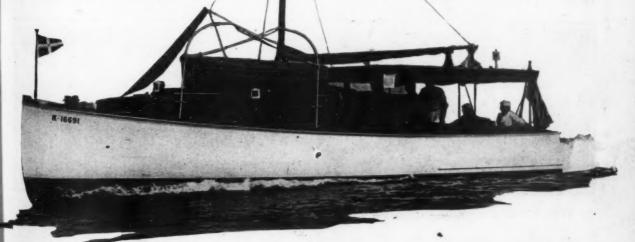
York Harbor

Zew

The big Matthews cruisers are sturdily built, and carry ample supplies of fuel and water. The power plant which is supplied as standard equipment is a choice of the six cylinder, 65 h.p. Kermath engine or the four cylinder, model E Scripps engine. The speed with either of these is approximately the same, about 12 m.p.h.



This will give an idea of the space available in the big cabin of the standard 38 foot single cabin Matthews cruiser. A large table can be comfortably set for from four to six people, and all can be served without crowding from the galley just beyond. At night this cabin will accommodate four persons



WHY DUPLEX OIL

Good MARINE

ENGINE LUBRICANT

An Interview with Lieutenant Commander Henry H. Hower, a Lubrication Technician

REMEMBER that back in my college days in Cornell, one of the professors in mechanical engineering always stressed one thing particularly in regard to lubrication, in addition to the necessity of using good lubricants. "Remember this," he said many times, "no lubrication can be efficient unless the oil is right for the work it is doing. It is just as important to design lubricants as to design a lubricating system. Too many people make the mistake of using whatever lubricant is at hand. Bear in mind, young men, that the wrong lubricant reduces mechanical efficiency in one way or another. That is a law of lubrication."

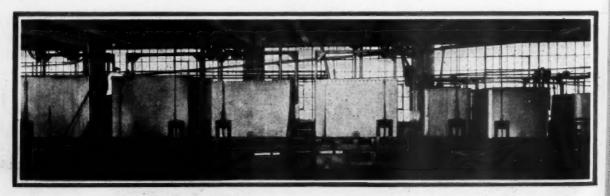
Henry H. Hower, President Enterprise Oil Company, Inc., Buffalo, N. Y.

My old prof's words came back to me early last year when I acted as navigator for Commodore Gar Wood in his historic race against the Twentieth Century Limited from Albany to New York—and MoToR BoatinG's readers will remember that we beat the pride of the

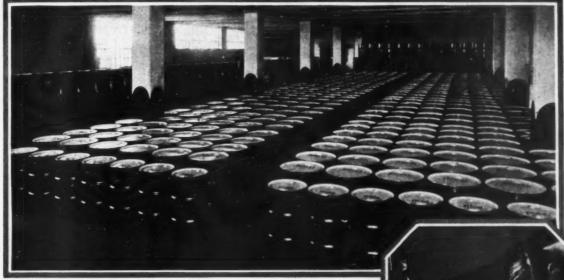
railroad world. Just before the start, when we were making a final check-up, I asked the Commodore whether he hadn't better get his engine warmed up, and whether he had a reserve supply of oil. He gave his head that characteristic shake and said "Don't worry—my oil is designed for my engines. Just keep me on the course." Several times on the dash down the river I thought of that remark, as I listened to the steady hum of the 500 h.p. Gar Wood engine driving us along at close to sixty miles an hour. And I remembered that Commodore Harry Greening had said much the same thing in the fall of 1925 when he established a new world's 24 hour record of 1251 miles.

So I hunted up the men who had designed the oil for Gar Wood, and who had also designed oil for Sterling, Kermath, Scripps, Gray and other leaders of the industry. I knew they had been eminently successful in lubricating the Maybach-Zeppelin engine with its roller-bearing connecting rod construction. I wanted to find out why this oil, by name Duplex Marine Engine Oil, had met with such great success. Here was something new, with a new doctrine—oil designed for marine engines. Back to my old college professor went my thoughts again.

I found the man I was after, Henry H. Hower, President of the company which makes Duplex, in the laboratory making steam emulsion tests, which I will admit didn't mean a thing to me until he explained that it was the one sure test for proving the purity—or impurity—of an oil. Having found the man I wanted, I asked him why Duplex had scored such great successes in the marine field. "Because it is right for the engines it serves, and because it is properly refined out of pure Pennsylvania crude" was his answer.



Battery of agitators used in manufacturing Duplex marine engine oil



Shipping room of Duplex marine engine oil plant

"But that doesn't tell me what I want to know," was my reply. "Other oils seem to be all right, and there are others made from Pennsylvania, aren't there?"

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m ie it "Now look here," Mr. Hower answered, "if you want the full story, I'll give it to you, but I'll have to begin at the beginning, or you won't know what I'm driving at because—" I interrupted him right there. "Just put it to me in a nutshell. I know your company has made oils and greases for Pierce-Arrow for a quarter of a century, and I have been told that Duplex was the first motor oil ever made from Pennsylvania crude. What I want to know is why Duplex Marine Engine Oil is so well liked throughout the industry and in the sport."

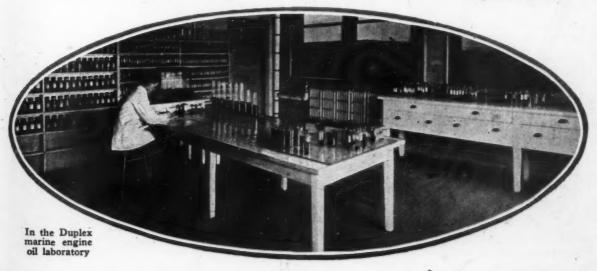
So Mr. Hower told me, but he did begin at the beginning, just as he said he would. My day with him was a liberal education in the rudiments of the fine points of internal combustion engine lubrication. But MoToR Boating isn't a technical publication, so I am reducing the information cleaned from him to every day terms.

information gleaned from him to every day terms.

If I may coin a phrase, Commander Hower is a lubrication technician. What I am trying to convey is that he studies the technique of lubrication as it applies to the modern high speed engine, first mastering the engine itself, and then, combining his knowledge of oil and engines, designs lubricants for specific engines, to do specific things in a specific way. Guess work simply doesn't enter into it at all. Part of the work is done in the Duplex laboratory located in their own plant at Buffalo, part of it is done in the testing rooms of the marine engine manufacturers and part of it afloat. Incidentally, Hower is a reserve Lieutenant
Continued on page 164)



Cut-away view showing internal inspection of Duplex marine engine oil drums





Getting a REAL THRILL

Commodore Arthur L. Bobrick of the Colonial Yacht Club who raced his champion cruiser Brickton III last year, engages in a spirited race with Wilbur H. Young of New York. Both are driving Dodge Watercars, and the Commodore reports they supply more thrills per minute than cruiser racing ever did

Driving BOATS WITHOUT



PROPELLERS

A German Inventor Develops and Successfully Tests a New Principle in Ship Propulsion Which Is Adapted to Both Water and Air

EMARKABLE results are looked for from a new method of ship propulsion invented by a German engineer and recently successfully fested on the A. Boerner, the inventor, is 29 feet in length, with a beam of 4 feet, and a draft of 2 feet. It has been arranged to carry about 900 pounds of ballast. The boat has no propeller in the stern, and is driven by a turbine shared screw which is installed in the bow and turbed. shaped screw, which is installed in the bow, and turned by a small engine of only six horse power. This wheel is at the base of a funnel shaped opening which is below the water line, with the large end forward. Astern of this on both sides of the hull are some slots resembling very strongly the gills of a fish, through which water is forced out. In fact, the new method of propulsion is

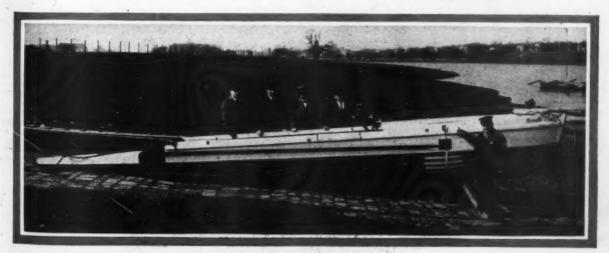
claimed to be an exact mechanical reproduction of the In his research work, the inventor was struck by the

swimming mechanism of fishes.

apparent discrepancy between the swift motion of fishes on the one hand, and the narrow limits so far met with in connection with any attempts to increase the speed of ships. He noted that the propulsive mechanism of fish had been entirely misunderstood, and by a closer investi-gation concluded that the tail and side fins of a fish are merely accessories used in steering while the actual propulsion is done by the gills. These, working like a pulsating pump draw in water and throw it out again with the result that they are driven forward by the reaction against the medium in which they swim.

After studying this mechanism, he was successful in duplicating it in a mechanical device, producing a rational system of propulsion adapted both to water and to air. The remarkable results obtained are mainly due to the insertion of a flow of liquid (or air) moving in the opposite direction to the motion of the craft. This separates it from the mass of the water or air which in ordinary cases causes the retarding resistance. This separating sleeve of fluid is led by convenient ducts through the body of the craft and is finally thrown out again through slots or nozzles in its walls. Turbines, propellers, or similar devices, are used to accelerate this outward flow, which, as in the case of the fish, becomes the main propelling agent. (Continued on page 100)

The odd German craft which drives for-ward by the reaction of water forced out along the sides through a series of gill-





MOST of SUMMER

A fisherman caught in the act. A long run to the quiet spots where the fishing is best and can be enjoyed to the limit is easily accomplished with the handy outboard engine. It is equally useful for a quick return trip

the

pen y in outansand tire and

camp ard is just iest ine useful The little light weight outboard engines are easily carried on the car and so easily attached to the stern of the row boat. Instantly a first class motor boat is available for any desired service for sport or pleasure

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INTERNATIONAL RACING at DETROIT

Entries Received from Canada, France, and Germany for Contests in September

I T now seems probable that we will have real international motor boat racing in this country this year for the first time since the war. If the present plans carry through, French, German, Canadian and perhaps English boats will be seen racing American craft at the annual Detroit regatta early in September.

Dr. Etchegoin of Paris has already accepted an invitation to come to America with his 12 liter boat, Sadi III, to race for the new International 12 liter trophy and R. C. Krueger of Berlin has promised to send over two 1½ liter boats for an international race for this class

The Detroit Yacht Club has definitely decided to make these two classes part of their Labor Day annual regatta program and have fixed September 3, 4 and 5

several Americans have agreed to build new craft to meet the foreigners and have the specifications of their boats meet the requirements of the 1½ and 12 liter classes which are European classes and have never been developed in America.

Commodore Harry B. Greening of Hamilton made a

Commodore Harry B. Greening of Hamilton made a trip to Europe recently in the interests of international racing and much of the credit for stimulating this form of competition goes to the popular yachtsman of Canada. In addition, Commodore Greening agreed to build a 12 liter boat to represent Canada. Already the new craft which will be named Rainbow VI, is well under way and should have her first trials within the next few weeks. Rainbow VI is designed and built by Ditchburn and will be powered with a 16 cylinder Gold Cup Miller engine. Although the piston displacement of this engine is only 620 cubic inches while the maximum allowable size for the 12 liter class

is about 732 inches, yet Commodore Greening believes his new ship will have sufficient speed to make a good race.

(Continued on page 138)

Sadi III, the 12-liter hydroplane with a record of 62 miles an hour, which will race at Detroit Saturday, September 3, 1927 2:00 P. M.—12 liter class, 30 miles 3:00 P. M.—151 inch class, 6 miles

Schedule of Detroit Races

2:00 P. M.—12 liter class, 30 miles 3:00 P. M.—151 inch class, 6 miles 3:30 P. M.—12 liter class, 30 miles 4:30 P. M.—151 inch class, 6 miles 5:00 P. M.—12 liter class, 30 miles

Sunday, September 4, 1927

A. M.—Cruisers and Outboards 2:00 P. M.—625 inch class; 21 miles 3:00 P. M.—525 inch class, 21 miles 3:30 P. M.—625 inch class, 21 miles 4:30 P. M.—525 inch class, 21 miles 6:00 P. M.—625 inch class, 21 miles 6:00 P. M.—Chance race

Monday, September 5, 1927

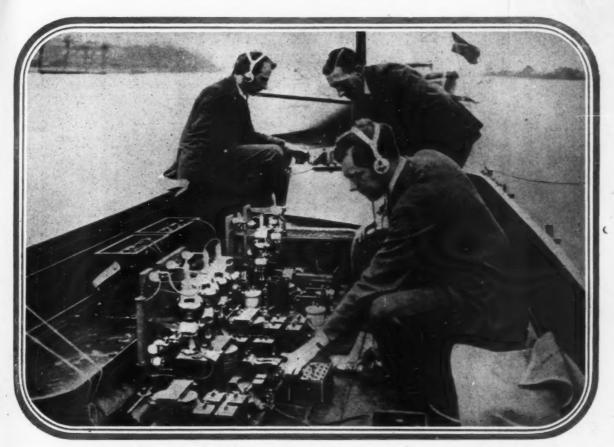
10:00 A. M.—1½ liter class, 15 miles 11:00 A. M.—151 inch class, 6 miles 11:30 A. M.—1½ liter class, 15 miles 12:30 P. M.—151 inch class, 6 miles 1:00 P. M.—1½ liter class, 15 miles 2:00 P. M.—Sweepstakes class, 150 miles



Dr. Etchegoin of Paris, who has entered his 12-liter

hydroplane for a race at Detroit in

September



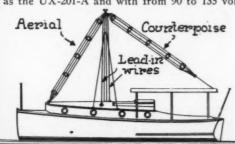
The English motor boat Magician, being fitted with a radio transmitter to broadcast boat races on the Thames River

BUILDING A SHORT WAVE TRANSMITTER

Simple Little Radio Set Costs Less to Build Than Average Receiver. Uses B Batteries and Amplifier Tube

By W. F. Crosby

A SHORT wave radio transmitting set, suitable for use on even the smallest cruiser is a relatively easy thing to construct. It is far simpler and cheaper than a receiving set and with only an amplifying tube such as the UX-201-A and with from 90 to 135 volts of



Suggestion for system on a small cruiser

How an aerial and counterpoise may be erected on a small cruiser. Each set of wires is insulated from the other B battery, the set will be capable of covering distances of at least 50 miles and sometimes more when operated under favorable conditions.

The set essentially consists of two coils, which may be easily wound at home, two variable condensers of the proper size, tube and socket, rheostat, telegraph key and the usual batteries, aerial and counterpoise and so on. All may be mounted behind a seven by fourteen inch panel.

The circuit is an inductively coupled Hartley and is in accordance with the Department of Commerce regulations in every way. It is, of course, necessary to have both a station and operator's license, before it can be used and the necessary procedure for securing these has been fully described in previous issues of MoToR Boating.

The coil or inductance is the first thing to make. It consists of two separate windings, a primary, L-1 and a secondary L-2. They are both wound on a three inch diameter composition tube and both windings must go in the same direction. The primary coil has approximately 40 turns of number 18 double cotton or silk covered wire while the secondary has 36 turns of the same size wire. The former coil has a tap taken off at every

five turns, each tap consisting of a loop in the wire from which the insulation may be removed. This is shown in one of the detail drawings. For contact here, the end of the wire coming from the aerial variable condenser simply has a little brass clip so arranged that it may be clamped to the tap wherever the set works best. clip, once it is set, may never be touched again.

The other coil, L-2, has only one tap and this is right

in the middle. The end furthest away from the primary is connected to the grid of the tube and also to the fixed plates of the second variable condenser. The center tap is connected to the telegraph key and through this to the negative side of the

battery circuit. The opposite end of the coil is wired to the negative side of the B battery and after passing through this, the positive side goes to the plate of the vacuum tube. The second variable condenser is, of course across this coil, L-2 in such a way that it tunes the inductance. Remember, though that once the right wave length has been reached, all variable these units should be left strictly alone. A slight shift of the condensers of the clips, may seriously affect the wave length and cause the set to interfere with some other band of transmitters.

The variable condenser in the aerial lead has the fixed plates connected to the aerial lead-in and the rotary plates

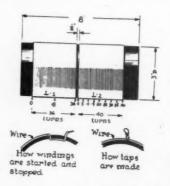
to the clip which goes to the coil L-1. The other end of this coil goes to the counterpoise.

This counterpoise, by the way, is nothing more or less than another aerial erected somewhere near the regular one. It should be insulat-

ed just as carefully as the aerial itself. Another drawing shows how this entire system could be installed on a small cruiser, the aerial running from the mast head down to the forward end of the trunk cabin and the counterpoise

running to the after end of the awning frame. Lead-in wires are brought down from the upper ends of these on opposite sides of the spar and then pass through the cabin top or the deck to the apparatus be-The lead-in insulators must be carefully worked

out so that in dampness there will be the minimum amount of electrical leakage. A glass top from a perco-lator will do the trick nicely. This is drilled to take a small diameter (1/4-inch) brass or copper rod. This rod is threaded at each end and passes through the center of the percolator cap and a glass rod inside, then through the deck to the inside of the cabin. Bakelite washers are used on each side of the deck to give bear-



Directions for winding the in-ductances for the low power transmitter

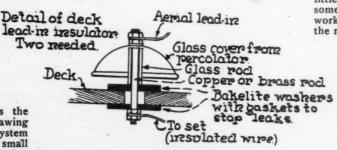
Sheave on each side of mast Glass insulator (pyrex) Metal retic), 6 dian Details of cape aerials and Similar insulation of lower ends

A balten

Complete wiring plan for the easily built B battery operated radio

Entire antenna and counterpoise must be carefully insulated

Suggested mast-head arrangement with aerial and counterpoise entirely separate



One arrangement for a deck insulator which will be leak proof

surface ing and prevent leakage. After the wires are attached outside and in, the nuts are set up tightly and entire job makes one which is not apt to dampleak ness below decks or to leak electrical energy t h rough poor insulation. Two complete insulators

outlined will be needed. The set should be placed near the lead-in insulators so that the wires will be as short as possible, and, of course, insulated wire must

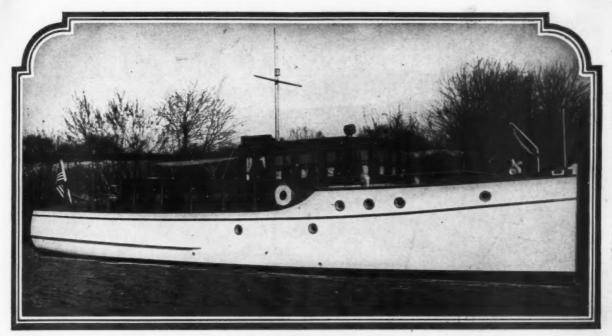
be used throughout. In the drawings cage aerials are shown. These may be about six inches in diameter with four or more wires attached to the rims of the hoops. Metal such as brass or copper will do the trick here nicely, but use no magnetic metal anywhere in

the installation. When the set is completed connect the batteries, aerial and counterpoise, key, etc., in place, then drop the tube in the socket and turn on the rheostat about a quarter of the way. Of course a six volt storage A battery should be used although even the little dry cell tubes have sometimes done phenomenal work. Without any aerial on the receiver, turn this on too

and then press the key, holding it down and tuning with the receiver.

Since the receiver has a ground on it, you may be able to pick up some other transmitters, preferably amateur, and by logging them on the receiver dials, you may tune your transmitter to its approx-

imate correct wave. A single pole double throw switch may be used for switching the aerial from the transmitter to the receiver and once you have the transmitter oscillating properly on the right wave-length, or near it at least, call some nearby amateur in order that he (Continued on page 146)



The 50-foot twin screw trunk cabin cruiserbuilt by the Vinyard Shipbuilding Company

A JIFTY of DISTINCTION

Substantially Constructed Cruiser of the Finest and Most Modern Type Powered with Two 65 H.P. Kermath Engines

RUISING boats are gradually growing larger in size. Among the builders of standardized vessels, the Vinyard Shipbuilding Company of Milford, Dela., believe that a boat of 50-feet length is just about the right size and type for the needs of the average yachtsman. The popularity of their twin screw, enclosed

bridge deck cruiser of this size seems to confirm their opinion. This particular boat is most substantially constructed, and assembled with extra heavy parts and materials throughout. The timbers and frames are of selected white oak, which is grown in the state of Delaware. The planking is extra heavy and 1 3/8 inches thick. In similar fashion, all other materials are substantial and enduring.

In the arrangement of the interior, special thought has been given to the desirability of being able to go through the boat from end to end, without having to go outdoors for the purpose. Naturally, the weather is not always good, and on such boats where it is necessary to go out into the open to get down into the forward cabin, it often becomes necessary to seek additional protection on this short trip. The arrangement of this boat is such that there is a through passageway from the owner's stateroom in the bow to the cockpit in the stern, which is entirely enclosed and sheltered. The enclosed bridge deck is arranged over the machinery space, and forms an extra room, which is in effect the outdoor

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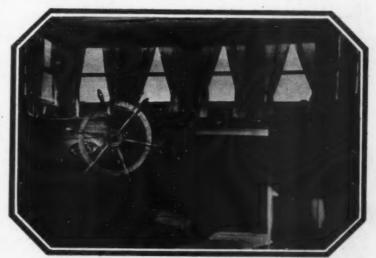
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quarters of the ship. Underneath is the power plant, and two 65 h.p. Kermath engines are used, although some of the boats have been finished with more powerful engines, according to the choice of the purchaser This boat is one of the few standardized boats which supplies a Frigidaire refrigerator as part of its equipment.



An enclosed bridge affords complete protection from the weather and is practically an additional room



FIFTEEN hundred miles up the Amazon River, a boat suddenly starts up out of the empty stillness of the tropical night. Not the staccato put-put of the ubiquitous outboard motor but the smooth, even

purr of a multi-cylinder marine engine. What a striking contrast it presents to the savage surroundings—this latest type marine motor from America. It is difficult to realize how these modern improvements and inventions so soon reach the outposts of civilization—they seem so incongruous, so distinctly out of place.

It is a long cry from Manaos, to Los Angeles, California, but distance is no longer a barrier to progress. The Hallett marine engine made in California is known today in every quarter of the globe. With distributors in every important marine point in the world from Manaos, Brazil, to Oslo, Norway, the sweeping recognition given to this new type marine engine has attained the proportions of a whirlwind.

A vague indefinite need has long existed for an efficient engine for small boats and yacht tenders. Ever since marine motors were first made, there has always been that annoying vibration that is inseparable from the small one and two-cylinder marine engines.

In the past efforts have been directed at improving

the efficiency of the one and two cylinder models and while many of them are excellent in design and work-manship, the principle of less than four cylinders is impractical from the standpoint of speed, flexibility and freedom from vibration.

The Hallett marine motor was designed to meet the need for a small, compact, efficient engine for small boats and yacht tenders. It is based on the success of the small bore, four cylinder type high speed engine which is daily establishing world's records on the speedway and over the water course.

Some idea of the size of this engine can be obtained by the fact that all four of the pistons can be held in the human hand at one time. These small pistons with all other reciprocating parts has resulted in an almost vibrationless motor.

Having developed a light weight, high speed fourcylinder motor, the problem of suitable propeller speeds was solved by providing a two to one reduction which allowed the engine to handle a large wheel.

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	24" byttock			3.9-4	3-0-0	2-7-1	2-4-6	2-4-2	2-5-4	2-8-3	3-1-5	5-9-4	
	12" Duttock	4-7-5	3-4-1	2-7-5	2-2-6	2-0-0	1-10-7	1- H-2	7-0-7	2-4-0	2-6-4	5-2-7	3-4-0
	Rabbet Line	3-2-0	2-5-4	2-0-4	1-9-4	1-8-0	1-7-5	1-8-5	1-10-5	2-1-5	2-6-0	3-0-0	3-0-0
	Keel Dottom	3-0-0	2-2-5	1-7-4	1-0-7	0-6-6							
	Sheer Line	1-2-0	\$-10-0	2-4-0	2-8-0	2-10-6	3-0-6	3-0-1	2-11-2	7-9-3	2-6-5	2-2-5	1-10-7
	W.L. 5 above	5-11-2	1-8-3	2-3-4	2-7-7						-		
0	W.L. 2 above	0-8-1	1-5-4	2-1-1	2-6-5	2-10-2	3-0-0	3-0-1	2-11-2	5-9-2	2-6-4	2-1-8	1.9.7
100	WILL I above	0-4-1	1-1-3	1-9-7	2-4-3	2-8-5	2-11-1	2-11-6	2.196	7-8-5	2-4-3	1-7-6	1-3-5
	LWL.	0-0-2	0-8-2	14-7	2-0-0	2-5-2	28.4	2.9.5	284	2-5-1	1.9.2	0-1-0	0-1-0
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Hal	W.L. 2 below				0-7-0	1-0-0	1-2-3	1-1-5	0.02				
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	Keel Bottom	6-0-2	0.0.5	0-0-5	0-1-5	0-2-1	0-2-6	0-7-4	0-2-1	0-1-E	0-1-6	0-1-0	0-1-0
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	Diag. 2	0-16-6	1-6-1	2-0-6	2-6-5	Z-10- 5	5-1-1	3-1-7	3-1-0	2-14-5	2-6-0	1-11-4	1-6-7
	Diag 3	0-6-5	1-2-1	1-8-5	2-1-6	2-5-1	5-1-3	2-7-8	2-6-4	2-5-5	1-10-5	1-3-1	1-1-7
	Dias 4	0-3-5	5-10-2	1-5-6	1-7-6	1-10-2	j-11-3	1-11-3	1-9-6	1-6-5	1-1-6	0-7-0	0-6-4

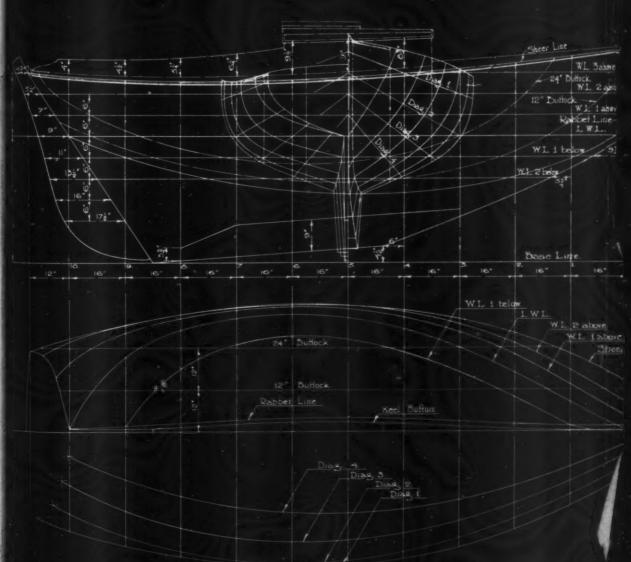
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GOZ A 16 FC AUXILIARY







GOZO: A Petite Sloop

A Smart Little Design and Specifications For a Crusing Sloop Which Will Furnish Much Sport for a Pair of Healthy Boys

Designed Especially for MoToR BoatinG

By
C. A. NEDWIDEK

OST popular among the small classes of auxiliary boats are the several little sloops which find much favor with the boys who lean towards sailing for their sport. The design for Gozo which has been prepared for this issue is a wee edition of a cruising sloop, or she might be defined as an open boat which has been improved by the addition of a small cuddy cabin which contains two transom berths which will give an abundance of room for two boys while they are off on a little cruise.

The design for this boat has been arranged as a round bilge type. There is ample stiffness in her lines to make her a good safe boat, which can be handled by boys without danger. The design follows somewhat the general lines of the famous Herreshoff Fish boats since it is quite similar in its profile, the short bow, and the transom stern. The body plan, however, is very much stronger and heavier, since the Fish boats are a racing class and Gozo is just an afternoon sailing and short cruising boat. The sailing rig has been arranged as a simple sloop rig, with a jib and mainsail. With a jib and mainsail this rig is about as simple as can be secured on a boat of this kind, since there are only two halyards, two sheets and two runner sheets to handle. All have been arranged to handle from the cockpit, with the exception of the halyards which are secured to cleats on the mast. To provide auxiliary power for times when there is no wind, a little two cylinder, two cycle, Evinrude engine of the 4-5 h.p. inboard type is called for, which will be sufficient to move her along very nicely when desired. Since this is fitted with a clutch, if will permit of easy control of the boat when under power.

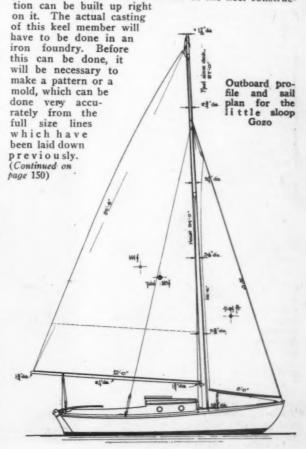
While the actual construction of the boat has been kept as simple as possible, it would hardly seem advisable for an inexperienced amateur to attempt the construction of a boat of this kind. It requires much steam bending and fine work, which the amateur would find difficult. The job is so small that any good boat builder could undertake the construction at a moderate figure, and turn out a partially completed hull, which the owner could finish himself, or otherwise do the entire job through to the last

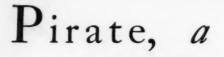
detail.

The frames which require bending have been kept small, and the keel is a built-up member of several pieces. From Station No. 3 to Station No. 8, the frames have been laid on top of the keel, which saves a lot of work in eliminating the need for setting the heels of the frames into the keel, and since they are screw fastened to the keel at this point, the construction is much stronger and substantial. Further forward at the stem and in the way of the shaft log aft, the heels of the frames will have to be boxed in; that is, a pocket must be cut out into which the heel of the frame sets. The construction of the boat, particularly that portion which takes care of getting out the keel must be done with a good deal of

care, so as to secure fair lines, free from bumps. Any one who attempts to build a boat of this kind will realize the need for laying down the lines in their full size on the floor or on building paper, before the work starts. While this detail has been explained many times, it will require merely the drawing of the lines, as found on the line drawing on a smooth floor or on heavy building paper in their full size. These are used to take measurements from, and determine the position and fit of the several parts.

One of the first things to do even before attempting any of the actual construction is to secure the iron casting for the keel. This is set up on the floor in the proper position, so that all the remainder of the keel construc-





T. E. Lander with a hull all ready for the chiseling out operation MODEL
SLOOP

Plans and Construction Hints for Building a Miniature Model Racing Sloop Thirty-nine Inches in Length

MoToR BoatinG has available for free distribution a limited number of full size drawings which can be used for tracing the lines of the different lifts. MoToR BoatinG will be glad to mail this drawing to interested readers who send a request to the Editor, MoToR BoatinG, 119 West 40th Street, New York, N. Y.

HE building of model sail and motor boats has always had a strong appeal for boys of all ages. This enthusiasm for boats and things nautical is to be encouraged in every way. In Los Angeles recently there have been held some contests for model sail boats between 34 and 39 inches in over all length. Valuable trophies were presented and boys all over the city worked industriously to build their little boats in time for these races. To help them in this work, the Los Angeles Evening Herald prepared a very excellent design for a 39-inch sloop which was designed particularly for construction by boys who did not have all the facilities and tool equipment available to older persons. This design

tool equipment available to older persons. was prepared by Thomas E. Lander, a well known builder of miniature racing yachts, and an authority on this subject, basing it on the lines of the R class sloops designed by L. E. Geary of Seattle, and which are a popular racing class on the West Coast. A model built according to these lines will be a regulation R sloop, under the Universal rule, and eligible for all racing conducted for boats of this size by recognized model yacht clubs.

The boat shown in these drawings

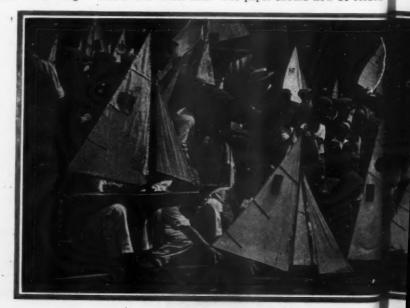
The boat shown in these drawings will be 39 inches in length, with a water line length of 24.30 inches; the quarter beam length will be 23.15 inches; the extreme beam 8.50 inches; the load water line beam 7.86 inches; displacement 160 cubic inches, or 5.77 pounds; and the weight of the lead for the keel is 3.40 pounds; the sail area totals 667 square inches of canvas.

Drawings covering the lines of this sloop are reproduced with this article, and while they are not the scale, MoToR BoatinG has available a limited supply of full size drawings, which will be sent to boys who request them.

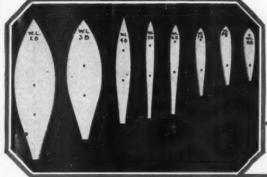
In order to begin work on a model

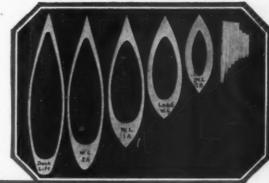
boat such as this, it will first be necessary to make full size patterns for the various parts of the boat. This hull is to be constructed on the lift system, which means that some thirteen waterline lifts must be prepared and assembled in a proper manner. Heavy drawing paper is used to make these patterns which can be traced directly from the full sized drawings by means of carbon paper and a stylus. Some three yards of drawing paper will be necessary for these.

The way to make any one of the required thirteen lifts, is to draw a center line on the paper, and trace the inside and outside lines of the same lift on one side of the center line. The paper should now be folded



Start of the final heat of the 1926 M





exactly on the center line, and by cutting around the lines have which been drawn both sides of the pattern are cut at the same time, giving the full pattern for both sides. This operation must be repeated for each of the lifts necessary, and each of these should be marked with its correct num-

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with its correct number, so that they will not be confused later.

The line drawing is so arranged that the outside of the lifts is placed on the upper portion of the drawing, while the inside line for the lifts will be found on the lower portion of the drawing. The five upper lifts are cut with both an inside and an outside cut, which makes them hollow. All the lifts below the water line 2B are solid and will not be hollowed out. After all the patterns have been prepared you will be ready to transfer these to the wood for the lifts.

A sufficient quantity of clear sugar pine without knots, sap or blemishes, and three-quarters of an inch in thickness should be secured to allow laying out the entire thirteen lifts. Sugar pine is a light wood, easily worked and is of the type necessary for this kind of work. As on the patterns a center line must be drawn, following which the patterns are laid on the wood, with the center lines coinciding with the center line on the board. Draw-



Illustrations showing the thirteen different lifts which must be prepared, and an assembled group of these before the shaping of the hull is begun. It will be noted that eight lifts are solid and five hollow

ing a pencil line around the entire pattern will give you the outside shape of each lift, and on those which are hollow, the inside line should also be drawn. This operation must be repeated until all of the thirteen lifts are drawn out to form.

It is well to locate the intersection of

the inside of each cutout with the center line, on the lift below it, so that they will have the proper relation to each other when assembled. By starting at the stem and measuring carefully, this point can be located and marked on the center line of each lift in turn. In a similar way, it will be necessary to locate the point for the 3/16-inch brass bolts which go through the eight solid lifts which form the keel. The hole furthest forward is located by measurements from the forward edge of each lift, and this point is marked on the wood. The other hole is 3 inches center to center from this. Be very careful in all these measurements as upon them depends entirely the securing of the proper profile.

You are now ready to glue the lifts together, and a water proof glue should be used, preferably Casein. First glue together the upper five lifts, driving a small brad in each end to keep the lifts from sliding out of their position during the clamping process. These brads,

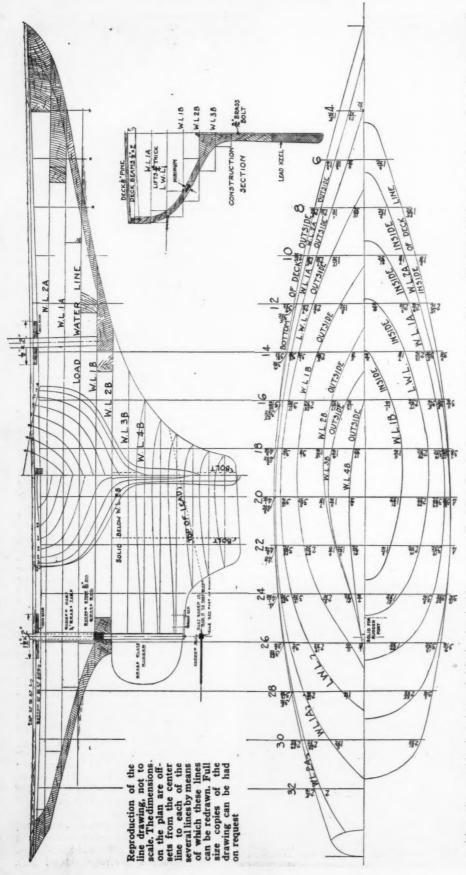
of course, are to be removed before the finishing up work begins. The lower eight lifts can be glued up, and drawn together by means of the brass keel bolts.

After these two separate parts have been glued up as described, it only remains to glue them together in turn, which is much simpler than attempting to glue up the entire stack at one time. After all have been glued together, they should be allowed to stand for at least 48 hours, so that the glue can set thoroughly and become completely dry. It has been found well to cover the inside and outside thoroughly with glue during the process.

You are now ready to begin shaping the hull. The keel bolts and the brads are removed, and a chisel, gouge, cabinet rasp, and sandpaper are used to take off the wood. By cutting off all the surplus wood to the intersection of each succeeding lift, the form of the hull will be nearly perfect, and will require but little additional work to produce a perfectly shaped hull.



Regatta at Westlake Park, Los Angeles



for the the inside can be given a good coat of either shellac After the outside has been finished, the inside should be carved out until the walls are not in excess At this time of one-quarter of an inch in thickness.

be made of the several cross sections at the stations of templets which can be fitted against the hull at the next step will be to locate on the hull the line designating the lead portion of the keel. This is to be To help in securing a perfect hull, patterns can By making these in the form proper station, a very fair hull can be secured. from number 4 to 32. or white lead paint.

tt lii en tri ir te ma a morph the at lift who serre wi No

sawn off with a fine hack saw, as square as possible, and the sawn off portion will be used as a pattern lead casting for the keel. This is to be

terial on the inside of the hollow lifts, so that there drilled at the proper points for the two keel bolts. When completed, the hull without the keel, should weigh not more than 2¼ pounds. This is very light, and to some of the older boys, or those with more experience in wood carving, the design is such that this can be easily secured. To the beginner, however, it may be necessary to allow a little additional mawill be no chance of slipping, and accidentally go-ing through the hull with a chisel or gouge. By

allowing additional material on the inside, there will The rudder can be made of sheet brass, secured be less chance of accidental injury to the work.

it with some small copper rivets. A little solder can be The brass tubing can be threaded on the The rudder blade can be secured to the brass rod by sawing a fine slot, inserting the blade, and securing applied also if desired. A rudder port of brass tubing the hull and the deck beam as shown on the full size to the rudder post, which is a 5/32 inch brass rod. 14 inch in outside diameter should be placed through bottom end, and screwed into the solid portion of the lift 1B. drawing.



A model R boat built from the design and lines published with this article

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The waterline can be preserved by marking it as called for on the profile drawing. It should be kept in sight by a distinct line during the work, and possibly a little color added to the glue which is inserted between lift 1A and the LWL lift, will help. In painting the hull be careful to separate the colors of the topsides and the bottom. In order to form a boot top, a strip of adhesive tape ½ inch wide is placed around the hull, true to the water line. coats of spar varnish. masts and spars are to be straight grain spruce, clear, free from knots, The and blemishes. mast requires to be sawn 5-8 in. square, and a little more placed around the hull, true to the water line, and then the top side paint can be carried to and a little more than 52 inches long. this above, and the bottom paint to it below. When the strip is removed after the paint This must be careis dry, you will have a clean cut line 1/8 fully tapered to the inch wide, which can be painted in a dimensions called contrasting color as desired. A good for on the drawing, after which combination of colors would be white for the topsides, red for the corners are bottom, and green for planed off boot top. Another combination would be a green bottom with a Another combination make it octagonal, and finalred boot top. Measurements for ly with a very the sheer line and the camber fine plane, these corners of the deck may be taken from the cross section, and profile drawing of the hull. The are dressed nearly round off until it is sheer line may be drawn on as the top lift, by using a light batten, while the camber may be obtained while possible. It should then making the three deck beams. The deck itself is made of one piece of 1/2 inch white cedar or mahogany, cut out of the outside of the top lift, allowing 1/8 inch extra all around for trimming. By shaping this extra ma-terial, it can be made to resemble a half round moulding, which projects beyond the line of hull at the deck line. To fasten the deck to the top lift, set it in white lead and screw fasten it with 1/8 inch No. 1 flat head

brass screws every two inches. The under side of the deck should be given three good coats of shellac before it is finally fastened down. The upper side of the deck should be sanded smooth with fine sandpaper, and given three coats of spar varnish. It should be allowed to dry thoroughly, and should be lightly sanded with 00 sand paper between each coat. The outside of the hull above the water line should be given three coats of flat white an under coating, carefully rubbed down between each coat so that the surface will be perfectly smooth. The water line should then be marked distinctly, and the hull can be finished in any desired color using white enamel if it is to be white, or any other colored enamels desired. There are many excellent colors available in automobile enamels, which are durable, and can be secured in small cans. For an especially fine job, two coats the finishing color should be applied, which can then be further finished by polishing the hull with fine steel wool, and varnishing it with several The

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Details of rigging and stays for the mast

should then be finished entirely smooth with a file, and sand papered. The finished mast should be 9-16 inches at the base, and 5-16 inches diameter at the top. It should be coated with one coat of shellac, rubbed down lightly, with 00 sand paper, and then finished with two coats of spar varnish. The boom should be made in exactly the same manner to the dimensions given on the line drawing. It will be 23 inches in length, tapering 5-16 inches to ¼ inch. A Jib boom is optional, but is used very frequently andtogoodadvantage on

(Continued on page 164)

Sail plan for the little model R sloop pirate

SMALL MOTOR BOATS

Their Care, Construction and Equipment

A Monthly Prize Contest Conducted by Motor Boatmen

Ouestions Submitted for the September Prize Contest

1. Explain and illustrate the construction and installation of a running light indicator to show if the lights are lighted.

(Submitted by W. B. M., Newburgh, N. Y.;

Describe and illustrate a method of laying canvas on a crowned deck so that it is tight and free from wrinkles, especially around skylights and the bow. (Submitted by K. W., Rochester, N. Y.)

Hints on Removing Propellers

Handy Devices Which Every Boatman Can Make for Himself and Keep in His Locker to Be Used When the Occasion Demands

> Answers to the Following Question Published in the May Issue "Describe how to make a wheel pulling device for three bladed propellers."

Built-Up Three Arm Puller (The Prize-Winning Answer)

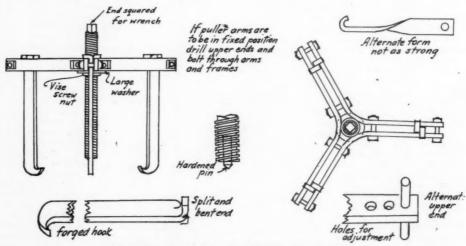
OR removing medium size three blade propellers, a puller can be built around a bench vise screw and nut, obtainable at any hardware store, and some bar iron or cold rolled steel stock, three-eighths by one and a quarter bars being about right for an inch and oneeighth vise screw. Some forging will be necessary but no machine work beyond drilling plain holes. Bend three lengths to fit closely against the vise screw nut, forming a three-armed frame as shown; two three-eighths inch machine bolts through each arm will hold frame securely,

though if the puller arms are to be held in a fixed position instead of the outer bolts, drill both upper end of arm and frames and bolt through the whole, an arm being between two frame

The vise screw nut will be provided with a flange, but a large washer slipped over the nut before frame is bolted into place will result in a stronger assembly. The lower end of screw should be drilled about threeeighths for a short distance and a hardened steel point set in; the upper end can be filed off square to take a wrench, or the original tee and handle left in place if thought strong enough.

Three puller arms are forged to shape, the lower ends hooked to bear on the forward face of propeller hub, the upper ends either split and bent over in opposite directions, as shown, or drilled for short steel bars. In the latter case, a series of holes may be drilled along bars, for length adjustment; the steel cross bar either resting on tops of frames, or frames may be drilled for same.

H. H. P., Los Gatos, Calif.



The built up propeller puller suggested by H. H. P.

Rules for the Prize Contest

READERS are urged to consider the above questions for the September issue, and send answers to them to the Editor, MoToR BoatinG, 119 West 40th Street, New York, N. Y. Answers should be (a) in our hands oh or before July 25, (b) about 500 words long, (c) written on one side of the paper only, (d) accompanied by the sender's names and addresses.

The names will be withheld and initials used.

QUESTIONS for the next contest must reach us on or before July 15. The editor reserves the right to make such changes and corrections in the accepted answers as he may deem necessary.

The prizes are: For each of the best answers to the questions above, any article or articles sold by an advertiser advertising in the current issue of MoToR BoatinG of which the advertised price

does not exceed \$25, or a credit of \$25 on any article which sells for more than that amount. There are two prises—one for each question—but a contestant need send in an answer to only one if he does not care to answer both.

For each of the questions selected for use in the following month's contest, any article or articles sold by an advertiser advertising in this issue of MoToR Boating of which the advertised price does not exceed \$5, or a credit of \$5 on any article which sells for more than that amount.

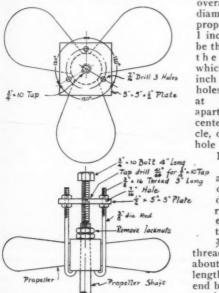
All details connected with the ordering of the prizes selected by the winners must be handled by us. The winners should be particular to specify from which advertisers they desire to have their prizes ordered.

An Iron Plate Puller

HE propeller puller illustrated on the drawings shows in a general way the accepted method which may be applied in most all cases for removing of propellers. The arrangement has been shown for three blade wheels, but by spacing the hooks at 90 degrees instead of at 120 degrees the device may be used for two or four blade wheels.

The puller consists of a 1/2 x 5 x 5-inch iron plate, three 3%-inch diameter iron hooks and one 34-inch iron machine bolt with thread running full length of bolt.

The parts being assembled as shown.



G. H. has arranged a simple de-vice which can be easily made

The 1/2 x 5 x 5-inch plate is laid out as follows: To the overall outside diameter of the propeller hub add l inch, which will be the diameter of the circle on which three 7/16inch diameter holes are spaced at 120 dégrees apart, and on the center of this circle, drill 41/64 in. hole for 3/4-inch x 10 tap.

The hooks are made up of 3% -inch diameter iron rod. the one end being threaded with 3% inch x 16 thread extending about 3 inches in length. The other end being bent into a hook shape as shown.

hook bolts may be

purchased ready made from most of the dealers selling ship hardware. The center bolt is a 34 inch machine bolt 4 or 5 inches long with 10 threads to the inch to suit the tapped hole in the center of the plate. The 34 inch bolt to have

cupped end.

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In using the puller, adjust the center bolt so that there is about 2 inches of thread outside of plate and adjust the hook bolts to suit so that the hook ends have good purchase on the propeller hub. By screwing in on the center bolt an outward pull will be exerted on the propeller, which will be loosened from the taper on the shaft and the propeller will easily slip off. G. H., W. New Brighton, N. Y.

Removing the Propeller

HE fact that the propeller is seldom removed from the shaft except for straightening either the propeller or the shaft makes the job many times harder. Bronze will not rust, but it will cor-rode and the corrosion holds the parts together nearly as tight as rust holds iron. In water bearing the least trace of salt the corrosion is more rapid. A propeller that is properly fitted to the shaft can not be removed without using quite some force, and after the fit has set for several years, and the metals have corroded it is practically impossible to get the propeller off without some sort of a puller.

The first thought is to drive it off by holding a block of soft metal or hard vood against the hub and striking with

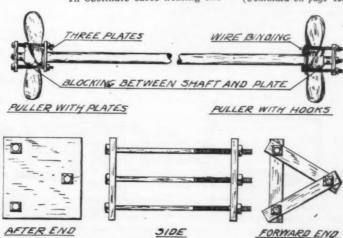
a heavy hammer. This method might work if the shaft was removed from the boat, if you could strike just right and if there was no danger of bending the shaft. Often it is desirable to remove the propeller without removing the shaft from the boat and if you strike from the angle necessary in this case, the shaft will most likely be bent. Driving wedges between the stern post and the propeller hub might occur to you as a simple method but the stern post will suffer untold punishment and the wheel will still stick to the shaft. Backing up the nuts to protect the threads on the end of the shaft and striking the outboard end of the shaft a smart blow will be more likely to produce results, especially with a taper bored wheel. A taper bored propeller needs only to be started and it is off, but getting the start is where the work comes in. In most cases, you can not strike the hub hard enough to have any effect without doing considerable damage to the propeller hub or the shaft or both. Of course, you can buy a wheel puller, but you will never use it enough to realize on the investment unless you are in the busi-

It is a simple matter to make a wheel puller that will be just as efficient as any that you can buy. A blacksmith will get out the pieces for a couple dollars, if you are not equipped to do the cutting and drilling yourself. Get three pieces of 1/2 by 11/4 inch flat steel of such a length that they will form a triangle around the shaft and allow enough additional length for 1/2 inch bolt holes on each These holes must be so spaced that bolts through the holes will clear the propeller hub slightly. Also get one piece if ½ inch steel the side of which is equal to the altitude of the triangle formed by the 1½ inch pieces.

This piece has holes drilled to check with the holes in the pieces forming the triangle when laid in position to form the same. Three 1/2 or 5/8 inch machine bolts with the threads extended two or three inches further complete

the puller.

To put the puller in operation, place the bolts through the square plate with the heads aft and then set up the three pieces on the bolts to form the triangle around the shaft behind the propeller hub. Place a short piece of shaft or round iron between the center of the square plate and the end of the shaft. Protect the shaft from possible damage by the triangle pieces gouging into it. The piece between the shaft and the square plate should be as long as will allow a full nut on the bolt and should be cut square on the ends. This blocking should be enough smaller than the shaft to clear the key. Turn up on the nuts, a half turn at a time in order to keep the pressure even, until you get a good pressure against the hub, then strike the plate directly over the blocking between the shaft end. Two nuts on each bolt will lessen the chance of stripping the threads. If you didn't get results, repeat the operation until the wheel moves. In obstinate cases heating the (Continued on page 158)



W. B. M. has also suggested an easily arranged wheel puller

How to Go Through Canals

Useful Information on Taking a Boat Through the Canal Locks Which Will Stand Everyone in Good Stead Under Similar Conditions

Answers to the Following Question Published in the May Issue "What information and hints can you give on going through canals and locks?"

Have Plenty of Fenders

(The Prize-Winning Answer)

ANALS without locks are pleasant places to travel, but locks add to the work and the worry of the cruising man. Commercial boats find little inconvenience in locking through from one level to another, but smooth, white sided pleasure boats often find the slimy, jagged walls of some locks a menace.

The inrush of water as the lock is filled is often a source of annoyance to the small boat. If conditions would always allow a boat being secured as shown in Fig. 6 there would be little to worry about in passing

through locks in this regard.

Wooden fenders 3 x 4 inches, used in connection with regular yacht bumpers are easily made and stand the gaff of hard bumps and scrapes. Lashed with a line passing beneath the keel, Fig. 1 and Fig. 2, they remain in position when a boat is hugging the walls of the locks through the action of the inrushing water as well as when the water is leaving and the unlashed bumpers are apt to creep up as the boat settles down.

Naturally they protect the regular bumpers in so far as they make contact with them on one side only, since the lashing prevents the 3 x 4 from rolling over, thus eliminating the possibility of smutting or tearing the bumpers with points that would cause canvas to hug, but

over which the wood rides with ease.

A temporary awning will save much labor and annoyance in canals where low bridges are the rule and will be as efficient as the regular top during the inland passage.

It is a good plan to follow the line AB, Fig. 4, in navigating a canal rather than the line CD, since the channel for the most part will follow the bends of the canal.

Since the seagoing qualities will not be paramount during the passage of a canal, it is often expedient to trim the boat so that the line of the keel is parallel, or almost so, with the surface of the canal, thus lightening the draft appreciably. In canals where much commercial traffic is met with, forcing the smaller fry to the edge of the canal and consequent shallow water, the lessening of the draft by six inches is sometimes of great advantage.

Varnished transoms bound with shining brass will be insured against injury and scarring by lashing bags of hay, which have been sewed together before being stuffed, to the corners of the transom in the manner indicated in Fig. 8. The bags should be well filled with the hay, since it compresses rapidly under pressure.

The old reliable bow fender made of rope will be of service in taking care of bumps that will come from the boat surging ahead while locking through. In a word, there should be bumpers ready at all times on both sides of the boat to meet emergencies, even if one does not care to have them dangling overboard all during the run.

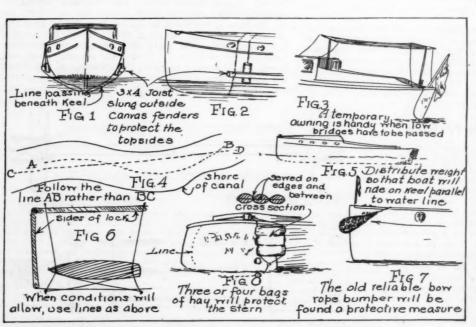
Give passing craft as much room as possible. Avoid the quartering wave of tows that travel with any degree of speed, particularly if other craft are following close astern. The helmsman should be well versed in the rules of the road, for nowhere will he find complications arise faster than in running canals. Furthermore, there are some specific differences that obtain in inland waters as compared with coastal waters.

J. E. M., Norwich, Conn.

Hints on Locking Through

equipment most boats generally sufficient for the needs of passing through locks, but it is well to be sure that you have a few long hooks, boat some lengths of rope to throw over the mooring posts bordering the lock keeping both ends in the boat so that you can looses yourself without the aid of any one of shore. Then it is best to have enough rope canvas fenden along the side of the boat to keep it away from the slimy walk of the lock. These of the lock. fenders should be of ropes about six fee long so that when you are out again in clear water they can be lowered and pulled (Continued on page 154)

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J. E. M. illustrates some of the suggestions made in his article on navigating canals

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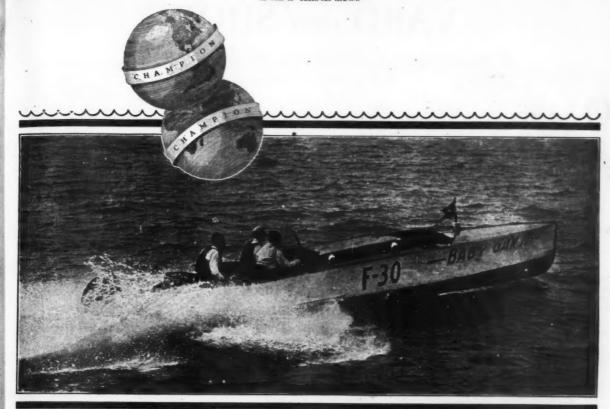
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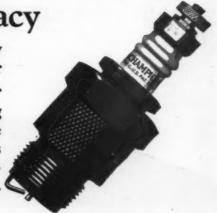


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YARD and SHOP

Notes of Interest to Both Owner and Manufacturer

Girl Runs Mail Boat

NE of the few marine mail carrying routes which is handled by a small boat driven by an outboard engine, is one operated by Miss Alice Emel on the Hood Canal in western Washington. She is the only girl mail carrier in the country. For the route she uses a 14-foot Mullins steel boat, which she drives with an Elto engine, and has given such reliable service with this outfit as to excite admiration. On only one day in the entire year was this outfit unable to cross the canal with the mail, but it must be explained that on this

The Matthews Company Entertains

There are so many visitors to the big boat building plant of the Matthews Company at Port Clinton, that the executives of the company find it difficult to accomplish their usual day's work. The necessity for showing the visitors around the plant is a duty which falls on their shoulders frequently. Many of the visitors are taking delivery of their new boats, and others are interested in the production methods used in the plant. While it is difficult for the executives to keep up with their office work, they are covered somehow, and the plant is doing a large volume of work. Boats are leaving at the rate of sevento eight per week, and it was remarked recently that they were afraid that this condition would have to

Boat Company of Detroit, have undertaken to supply the ready cut material for a fast Waterplane, so that it will be a simple task to assemble a complete boat, which will give all the



One of the little 11-foot ready cut Heath boats being driven by a Caille Master 5 Speed Twin

thrills of skimming along at a racing speed. The illustration shows one of these boats being driven along at about 24 miles per hour, with a Caille Master 5 Speed Twin. The boat with two persons is capable of about 20 m.p.h. Its weight complete is only 75 pounds, and the length a little more than 11 feet. It is of the step hydroplane type, and boats of this nature have made some exception-

ally fast records recently.

A Marine Turn Table

Very few boat yards have such wonderful facilities that they attract attention from visitors to the yard. The plant of Peirce & Kilburn, Inc., of New Bedford, have a big yard at Fairhaven, Mass., and in order to handle boats quickly, and move them (Continued on page 52)



day it was also too rough for the automobile ferry to make the passage. This particular mail route crosses Hood Canal at one of the most exposed points in its 30 miles of length, and these waters have a reputation for being rough practically every day of the year.

In addition to operating this boat Miss Emel has also won a national beauty contest, won recognition as a short story writer, and sung in the Civic Opera Company in Seattle. continue for several weeks more. The expression however, was only used in the sense that while it causes them considerable grief and hustle on the part of all hands, it is a sure sign of the success and popularity of the 28 and 38 foot cruisers which this company build.

Ready Cut Small Boats

Now that there are so many young men wanting fast boats to be driven with outboard engines, the Heath



Yale's new Hand designed coaching boat, which was built by the Portland Yacht Yards, and powered with a 100 h.p. six-cylinder Kermath engine

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All hands on deck, Bos'n, man the rails for an Ovington China Service!

SMARTLY, bos'n, smartly. And smartly it is when a sea-going bos'n gets the word that Ovington's china is coming aboard. For this is china made to the sea—china to weather the winds and the waves—china that serves the smartest yachts that range the seven seas.

What are the findings in your own case, Commodore? Everything shipshape? Any derelicts in sight? Better sound inspection

and if your china and crystal fail to pass muster, break out your charts and plot your course for Ovington's.

For as littleas \$100 you can give your good ship a china service of which she may well be proud. For as little as \$100 you can have a service for six emblazoned with your own flags. Crystal sets cost even less. And it will be a gala day when your good service is piped in honor to your galley.

436 Fifth Avenue New York **OVINGTON'S**

212 North Michigan Blvd. Chicago

Yard and Shop

(Continued from page 50)

to all parts of the yard, they have installed a remarkable new railway system with the only railway turn table for boats in the world. The first boat to be hauled out on this railway after its completion was equipped with a model F-4 medium duty Scripps engine. Many of these engines are being installed in boats by this firm, and since they are in a position to service boats at all times irrespective of tides, the ways are always working to capacity.

Yale's New Coaching Boat

Coach Leader of Yale is perhaps one of the greatest rowing coaches of all time. His name is synonymous with the development of winning crews. Without going into the details of the technique of rowing or of coaching oarsmen in the fine points of this spirited and engaging sport suffice it to say that coaching success is largely dependent on attention to the smallest details and an uncanny discernment.

When the thousands of spectators annually line the shores to view the Harvard-Yale race little thought is given by them to the painstaking effort, the tedious grind preparatory

to such a meet.

One feature alone drives home the point that races are won or lost by the degree of vigilance constantly exercised. When Yale required a new coaching boat every effort was expended to make this craft serve its purpose to the best possible advantage. One of the first requirements was the absolute necessity for a design that would minimize the wake disturbance at rowing speeds with a

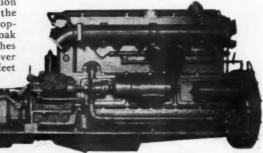
maximum speed of 20 miles per

The problem of securing such a boat was turned over to John M. Goetchius of New York, an ex-Yale oarsman and a yachtsman of considerable experience. Casting about for a builder the Portland Yachtyard of Portland, Connecticut, was selected. Wm. H. Hand of New Bedford was detailed to draw up the plans for this rather unique craft. Bringing into play all of his skill in this rather unusual commission, the plans were soon ready and work was

begun. The construction was in accordance with the most modern practice, copper fastened over white oak frames spaced eight inches on centers. The length over all was 32 feet with 6 feet

plant. The ideal carburetion of this motor at low speeds for considerable time was one of the factors in favor of its selection. At the same time its excellent speed range was quite important in eliminating waste time.

portant in eliminating waste time. The delivery date was set for March 30th at the Yale Boathouse and this schedule was carefully adhered to. By drawing in the lines aft and pulling up the chine, considerably less wake resulted than had been anticipated. Not only was this true but the boat in one of her trial runs proved to be one of the best sea



The new model Hall-Scott 175 h.p. engine which is provided with a water cooled lower crankcase and a built-in reduction gear

5 inch beam and 2 feet 2 inch draft. Considerable stability was required as nine men besides the coach and crew of the boat and various rowing equipment had to be carried on occasion.

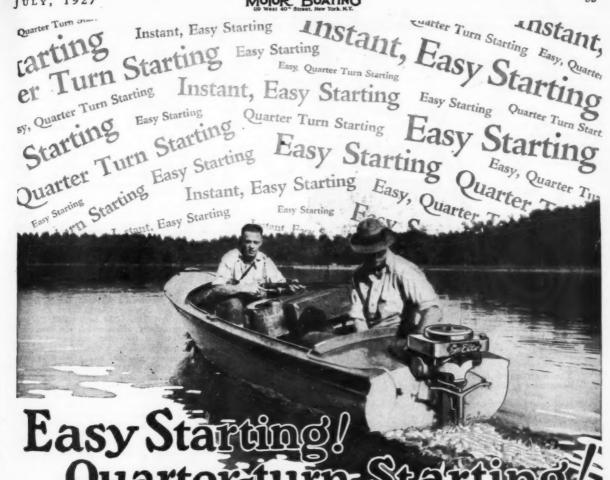
Because of the rather unusual limitations placed on the speeds of this boat a Kermath 100 h.p. six cylinder motor was chosen for the power

boats for her inches, M. S. Cornell of the Portland Yachtyard has ever ridden in.

Coach leader and Mr. Goetchius together with the Yale Athletic Association are mightily pleased with the results that have been obtained. This boat travels steadily at eight to ten miles per hour and exceeds its speed (Continued on page 54)

A fine example of yard equipment is the marine turntable used by Peirce & Kilburn, Inc., at their Fair-haven yard. The first boat hauled on this new ways was powered with a model F-4 Scripps engine

he nis en



QUARTER TURN! That's what makes all the difference in the world!

Effortless. Merely an easy three-fingered flip of the flywheel—and instantly there's the deep-chested response! And away you go! That—THAT is easy starting!

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Battery ignition! That is one of the reasons for Elto's easy starting. Columbia Hot Shot Battery — billions of fat, sizzling sparks that fire regardless of rain or cold or cranking speed. Battery plus the famous Atwater-Kent Timer.

Plus fundamental motor design uncompromisingly engineered to make the most of full battery ignition. Those are the reasons for Elto's easy starting.

For yourself - and for the pleasure of

every member of your family — quarter turn starting!

The Elto book gladly sent on request. ELTO OUTBOARD MOTOR COMPANY, Ole Evinrude, President, Mason Street, Dept. F, Milwaukee.



Super Soft Of Starts with a quarter turn

Yard and Shop

(Continued from page 52)

limits of 20 miles per hour by a good four miles. If Yale's new coaching boat has anything to do with developing a winning team, we think the chances are excellent to add another victory to its laurels.

A New Hall-Scott Engine

The success of the Hall-Scott R type engines has been an exceptional one. In cruisers, auxiliaries and work boats they have proved to be as efficient, dependable and economical a power plant as it is possible to buy. Combining as they do the perfected Hall-Scott medium duty engine with the remark-



The high speed, four cylinder, Red Wing Thorobred engine, designated as BB4, which develops up to 70 hp. at 1,800 r.p.m.

able Hall-Scott water-cooled reduction gear, they make ideal power plants.

Following an insistent demand the Company has recently produced a new model of somewhat larger dimensions suitable for boats which heretofore could be driven only by Jarge,

heavy-duty or Diesel type equipment.

The new model is called the Hall-Scott 175 and is an ex ceedingly smooth, quiet running motor. Included among its principal features are a water-cooled lower crankcase (a dis-tinct Hall-Scott feature); Water-cooled Hall-Scott designed gear box furnished in either 2 to 1 or 3 to 1 reduction, engine is also furnished as a direct drive unit,

built-in vacuum pump having an actual capacity of 40 gallons per hour against an 8-foot lift at full speed and more than ample capacity at idling speeds; Hall-Scott propeller shaft brake synchronized with the clutch throw-out, thus eliminated the court of the nating any clashing of gears. Further, there are: a semi-supercharger and air intake manifold which eliminate fire hazards caused by backfiring of the engine; Hall-Scott designed and perfected oil filters. Oil fumes are consumed by carbureters through a special pipe connecting with the rocker

Among the special pipe connecting with the rocker arm cover.

Among the specifications are found the following points: 6 cylinders, bore 5-inch, stroke 7-inch, displacement 824.67 cubic inches; 175 horsepower at 1800 r.p.m of crankshaft; fuel consumption 6 pound per brake horsepower hour; weight, approximately 2650 pounds; shipping weight approximately 3500 pounds; 400 watt, 12 volt generator; large capacity starting motor and double ignition system firing two plugs in each cylinder. This research

system firing two plugs in each cylinder. This motor is also furnished with either or both right and left hand rotation.

This husky looking motor is now on display at the Company's show room at 217 West 57th Street, New York.

Red Wings New Four

A light weight, high speed, four cylinder Red Wing Thorobred engine has been completed by the Red Wing Motor Company of Red Wing, Minn., which develops from 45 to 70 h.p. This is the highest speed four cylinder engine which this company builds, its normal speed range being from 1,000 to 1,800 r.p.m. The bore of this engine is 4½ inches, and the stroke 6 inches. It is the same general engine as the famous BB six, except that it is built with four cylinders and a five bearing crankshaft, instead of the six cylinders and a seven bearing crankshaft offered in the larger engine. The BB four is particularly suited for use in the fast substantial runabout or

passenger craft. All castings below the cylinder block are made of salt water resisting aluminum alloy. It is also possible to secure this same engine in a medium duty type, with an iron base which is rated at from 40 to 50 horse power, and 800 to 1,200 revolutions. The medium duty engine is delivering excellent results in boats of the heavier cruiser type. A feature of them is that they are built as true right and left hand types from the ground up, which makes them particularly suitable for twin screw installations.

A smaller engine also built by this company is their model.

A smaller engine also built by this company is their model AA, which has been redesigned with an enclosed fly wheel The enclosure is neat, and does not project far below the oil

can, which makes the installation very easy. Refinements have been added to this engine from time to time, so that it is strictly up to the minute, preserving the dependability which made this model famous. Circulars describing these newer engines, together with the complete selection will be mailed on request, to the Red Wing Motor Company.

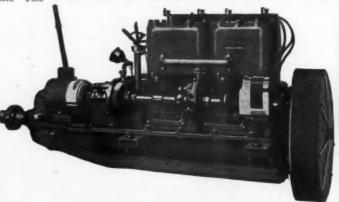
A New Trophy

For competition in the annual Chicago to Mackinac and Detroit to Mackinac race, Commodore Sheldon Clark jn conjunction with Aaron De Roy of Detroit, have presented a perpetual trophy which will be called the Sheldon Clark-Aaron De Roy Inter-City Trophy. This is to be awarded to the boat of the two fleets which makes the best corrected time between the cities mentioned. The

rected time between the cities mentioned. The form of the trophy will be somewhat unusual, as it will be a bronze placque, and a work of art. The first competition for this trophy will be held on July 23, this year. The race will be opened to boats flying the colors of the Detroit (Bay View) and Chicago Yacht Club fleets. A Deed of Gift governing this trophy has been drawn up, and the conditions will apply to the first race. Any boat enrolled in any recognized club on the Great Lakes, and flying the colors of such a club, is also eligible to enter either of the two fleets, and compete for the trophy. This prize will do much in promoting friendly competition and a broader interclub spirit among all the yacht clubs on the Great Lakes. clubs on the Great Lakes.

Great South Bay Yachts to Race

The Fire Island Yacht Club at Ocean Beach on Great South



The re-designed Red Wing model AA is a smaller engine now provided with an enclosed fly wheel. It will develop up to 24 h.p.

Bay, was recently taken into the membership of the Great South Bay Yacht Racing Association, and is to hold its first Regatta on July 30 of this year. The races will be for motor boats of various classes and sizes. The principal event will be boats of various classes and sizes. The principal event will be for a sterling silver cup of unusual size and beauty, presented by Arthur W. Middleton, and which will be given to the winner outright. A duplicate will be made each year in order to promote cruising racing on Great South Bay. It is proposed to make this race open to cruisers from 30 to 45 feet in length, and over a course of about 40 miles. The new Past Performance rules of the American Power Boat Association will be used to handicap boats for this contest. Yachtsmen are invited to to handicap boats for this contest. Yachtsmen are invited to call at the Fire Island Yacht Club when in Great South Bay, and become acquainted with the members there. Aftly

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Power, Three 480 H.P. Maybach-Zeppelin Motors
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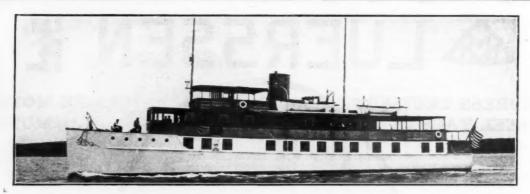
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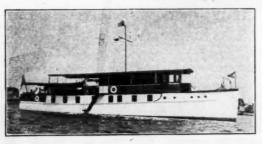
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NAVAL ARCHITECTS—MARINE INSURANCE—YACHT BROKERS
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On this page are shown a few representative yachts selected from our large lists. Should none appeal, kindly acquaint us with your requirements. Full information regarding costs to build, purchase or charter yachts of all types gladly furnished.



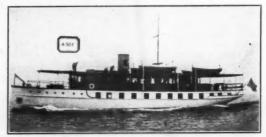
No. 4677—FOR SALE—(In commission)—Commodious and luxuriously equipped steel, twin-screw power houseboat; approximately 115 ft. overall. Built regardless of expense by one of the oldest and best Yacht building firms in this country. Two 6 cyl. 125 H.P. Winton gasoline motors; speed 12-13 miles. The large continuous deckhouse contains owner's stateroom and bath, also large combined living and dining room. Below aft are six staterooms and four baths; all quarters for owner and guests are large and airy, as well as being handsomely finished and furnished. Completely equipped. Personally inspected and recommended by us. Price and further details from Cox & Stevens, 341 Madison Avenue, New York.



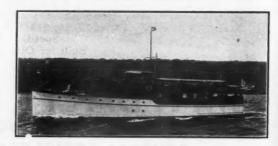
No. 3816—FOR SALE—Immediate delivery can be had of this attractive twin-screw 75 ft. power houseboat. Has a speed equal to that of the ordinary cruising power yacht. Two 6 cyl. 100 H.P. Speedway motors. Owner's quarters forward consist of two double staterooms and bath, next aft being the dining saloon followed by galley. Large deckhouse, containing social hall. Spacious after deck. Has had very best of care. Further information from Cox & Stevens, 341 Madison Avenue, New York.



No. 3810—A real opportunity to get the benefit of the careful planning of an experienced yachtsman. Most desirable combined day cruiser and commuter ever offered. Fifty-seven feet long. Two 6 cyl. 180 H.P. Speedway motors; speed up to 24 miles. Bridge control. One man can run her. Price and further data from Cox & Stevens, 341 Madison Avenue, New York.



No. 4501—FOR SALE—98-foot Twin-Screw Mathis Houseboat. Specially designed and built for present owner in 1925. Two 150 H.P. Winton gasoline motors; speed up to 15 miles per hour. Roomy accommodations for owner and guests include two double, two single staterooms, two bathrooms. Large deckhouse, containing living and dining rooms, pantry, lavatory, pilot house and captain's room. Handsomely finished and furnished. Price unusually attractive. Cox & Stevens, 341 Madison Avenue, New York.



No. 4590—Owner anxious SELL or CHARTER—Practically new 75 ft. power yacht. Speed up to 12 miles. Deckhouse containing dining saloon; two double, two single staterooms, two bath and toilet rooms. Built best manner. Price low. Cox & Stevens, 341 Madison Avenue, New York.

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We have a most complete and up-to-date list of steam and motor yachts of all sizes, sall, auxiliary, and houseboats, on file in our office, is the constantly up-to-date by thorough and comprehensive canvass of the entire yachting field from time to time. We are in a position to submit full information on any type of boat upon request.



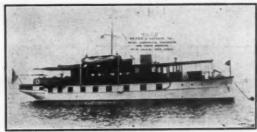
No. 9475—For Summer Charter—This attractive 85-foot twinscrew houseboat with splendid crew; two large double, two single staterooms; 3 bathrooms; deck salon 29 x 13°, all teak trim. Speedway motors, speed 12-13 miles, no vibration. All modern conveniences and in excellent condition. Henry J. Gielow, Inc., 25 West 43rd Street, New York, N. Y.



No. 9825—For Sale—Lawley 68-foot twin screw express poweruser; speed 20-22 miles; two double staterooms; two toile rooms; salon with two spring berths; forecastle for crew othere; excellent condition. Price and further particulars consultenry J. Gielow, Inc., 25 West 43rd Street, New York City.



No. 9426—For Sale—Modern 98' twin-screw cruising houseboat, built 1925. Speed 12-14 miles; two Winton motors. Accommodations include two double, three single staterooms, three batherooms, large dining room and living room on deck. Beautifully furnished and fitted. An unusual offering. Price and further particulars from Henry J. Gierlow, Inc., 25 West 43rd Street, New York City.



No. 9425—For Sale—Handsome 84-foot cruising houseboat; large deck house containing dining and living room. Three double, single and maid's stateroom. Three bathrooms, also crew bath; two six cylinder Speedway motors; speed, 12 miles. Furnishing and equipment in excellent condition. Price attractive. Henry J. Gielow, Inc., 25 West 43rd Street, New York.



9466.—FOR SALE. Opportunity buy high class fast cruiser reasonable, 55'x11'x2'9'', two 6-cyl. Sterling motors new 1926. Boat built 1920 Hand design. Stateroom, saloon sleep 6-7. Fully furnished, highest quality. Speed 16-18 up to 30 miles per hour. All fine condition. New Awnings and furnishings 1926. Henry J. Gielow, Inc., 25 W. 43rd St.



No. 9901—For Sale—Most complete and up-to-date 55-foot twin screw power cruiser; large comfortable deck house; two double staterooms; bath room and extra toilet room; Speedway notors 12-14 miles per hour. For price and further particulars consult Henry J. Gielow, Inc., 25 West 43rd, New York City.



No. 7603—For Sale—Modern 145'x20'3"x7'6" twin-screw Diesel of this type for immediate purchase. There are two deck houses, forward one contains dining salon, pantry; after deck houses, san owner's stateroom and large living room. Accommodations below provide two double and two single staterooms, two bathrooms, extra toilet room. Winton motors. Speed, 15 miles. Excellent seaboat, suitable for extensive off-shore cruising. Henry J. Gielow, Inc., 25 West 43rd Street, New York City.



No. 8372—For Sale—Recently built Lawley 77-foot fast cruiser, Sterling motors; speed 21-23 miles. Excellent accommodations; large deck house containing dining salon and lounge; below are three double staterooms and extra toilet room; in excellent condition and completely found. Further details may be had from Henry J. Gielow, Inc., 25 West 43rd Street, New York City.

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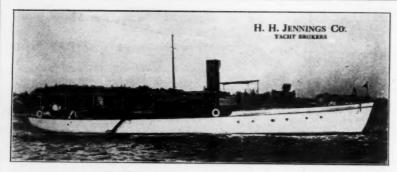
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No. 4309. An opportunity to buy this Lawley built steam yacht at the right price. In full commission. Length O.A. 101 ft. Beam, 15 ft. Draft, 6 ft. Has two double staterooms, two berths in main saloon, and one berth in decknouse. Two toilets, one shower. Electric lights, steam heated, etc. Speed, 13-15 miles. Just passed Government inspection. Exceptionally economical on fuel. Ideal for conversion to Diesel power. Don't hesitate if she comes anywhere near your requirements. Full information from H. H. Jennings Company, 29 Broadway, New York City.



No. 4534—Sale or Charter—100 foot twin screw houseboat. Three double and two single staterooms, Dining saloon, Living room. Three bathrooms. Good crew's quarters. Two Winton motors. Speed 12 miles. Hot water heat. Ice machine. Electric plant, etc. High class out-



No. 2733—67 ft. Twin Screw Power Yacht. New 1926. Two double staterooms. Two berths in saloon. Transom berth in deckhouse. Two toilets and bath. Beautifully finished in mahogany. Good crew's quarters. Two 100 H.P. Sterling Motors. Speed 14-15 miles. Electric plant. All modern conveniences. Splendid proposition.



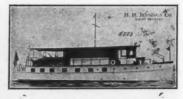
No. 2604—62-foot twin-screw express cruiser. Built by Consolidated Shipbuilding Corporation in 1923. Two sofa berths in main saloon and one in deckhouse. Toilet. Galley. Two berths and toilet for crew. Two 300 H.P. Speedway Motors. Speed up to 30 miles. Electric plant, etc.



No. 2684 — 75-foot Power Yacht, practically new. Two double and two single staterooms. Dining saloon in deckhouse. Two bathrooms. Good crew's quarters. 75-100 H.P. motor. Speed 11 miles. Electric lights, etc. Strictly first-class outfit.



No. 4370—115-foot Oil-Burning Steam Yacht. Built by Herreshoff. Two double and one single stateroom. Two berths in main saloon. Bathroom, etc. Good crew's quarters. Steam heat. Electric Lights. All modern improvements. Speed 15-18 knots. Splendid proposition.



No. 4583—60 foot houseboat. Built 1925. Two double staterooms. Two berths in dining sal-oon. Large deckhouse, containing living room. Two toilets. 75-100 H.P. motor. Speed 10-11 miles. Electric lights. Hot water heat, etc. Splendid proposition.



No. 2272-45-foot bridge deck cruiser. Built by Britt Bros. Double stateroom. Three berths in forward cabin. Toilet room and galley. Berth on bridge deck. 65-100 H.P. Scripps motor installed new 1923. Speed 10-12 knots. Separate lighting plant. Power tender. Splendid proposition. In commission. Owner purchased larger yacht.





No. 2901—45 foot Elco Cruiser, new 1925. Enclosed bridge deck (not shown in cut). Double staterooms. Two upper and two lower berths in main cabin and one in deckhouse. Two plots toilet rooms. Berth and toilet for man. 42 and bath. Good crew's quarters. Two 45-50 H.P. Elco Motor, Speed 11-12 miles. Electric H.P. Elco Motor, Speed 11-12 miles. Electric ctc.

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No. 8266—FOR SALE OR CHARTER—Desirable fast cruising motor yacht. 78'x13'x3'3" draft. Has two 200 H.P. Speedway motors. Three staterooms and deek dining saloon.



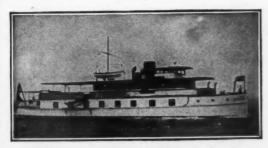
No. 7266—FOR SALE or CHARTER—Cruising motor yacht. 75'x14'2''x3'9'' draft. Built 1920. Powered with two 180 H.P. Speedway motors new 1925. Speed, 15-18 miles.



No. 1941—FOR SALE OR CHARTER—Houseboat, 100 feet x 23 feet x 4 feet. Six staterooms, four bathrooms, dining and deck sitting rooms.



No. 1999D—FOR CHARTER—Brand new 93-foot Mathis houseboat; five staterooms, three having two beds each, three bathrooms; large living and dining room on deck. Powered with two 150 H.P. Winton motors.



No. 1965-FOR SALE OR CHARTER-Very desirable 99-foot houseboat, three double staterooms, two single staterooms, three bathrooms, dining saloon and lounging room.



No. 9520-FOR SALE-Brand new 70-foot raised deck cruiser. Powered with two 235 H.P. Sterling motors. Speed, 18 M.P.H. Three staterooms. Bathroom. Extra toilet room, etc.



No. 1912—FOR SALE or CHARTER—Desirable houseboat, 77'x 17'6"x3'6". Four staterooms, 2 bathrooms, main saloon and deck saloon.



No. 7817—FOR SALE—Price attractive. Twin-screw Diesel ocean going yacht at present cruising abroad. Due these waters about May 1st., 120'x20'x66'' draft, built 1926. Two 175 H.P. Winton Diesel motors. Cruising speed, 13 miles. Very completely fitted and furnished.



Offer all of the desirable yachts available for sale and charter, some of which are illustrated above.

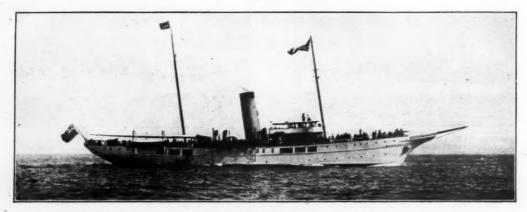


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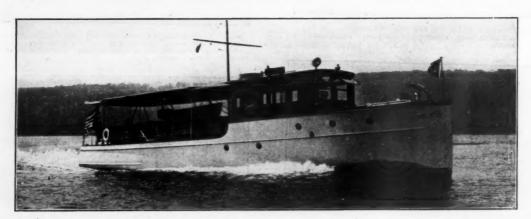
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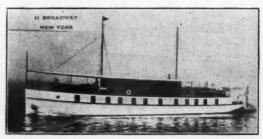
FOR SALE—No. 5029—We have been instructed to offer for sale this famous twin screw sea-going Steam Yacht, one of the most comfortable sea-going cruisers ever built and well-known on both sides of the Atlantic. Dimensions: 219° O.A., 32°2° beam, 12° draft. Designed by R. L. Newman and built in Scotland. Steel construction throughout. Classed 100 A-1 at Lloyds. Teak decks. Accommodations include large owner's quarters on main deck, with luxurious stateroom, private bath, sitting room and two additional staterooms and two bathrooms. The guests' quarters are below and comprise six large staterooms and three bathrooms. Main saloon 17'x23'. Drawing room, dining room, library and smoking rooms. Seven feet headroom throughout. Has cruising radius of over 5,000 miles. For full particulars, plan, etc., apply BURGESS, RIGG & MORGAN, Ltd., Naval Architects and Yacht Brokers, 11 Broadway, New York.



FOR SALE—No. 2110—Consolidated Bridge deck express cruiser. Dimensions: 60'5x127"x3' draft. Built 1920. Has two Speedway motors which give speed of 21 M.P.H. Excellent o wner's quarters with bathroom. First-class sea boat. Full particulars, price, etc., from BURGESS, RIGG & MORGAN, LTD., 11 Broadway, New York City.



FOR SALE—No. 3319—At rare bargain, 32' raised doek express cruiser, 90 H.P. motor, 20 M.P.H. Curtiss engine, mahogany superstructure, 2 years old. Has had excellent care, fully equipped and in first class condition. Selling to buy larger boat. Further particulars from BURGESS, RIGG & MORGAN, LTD., 11 Broadway, New York City.



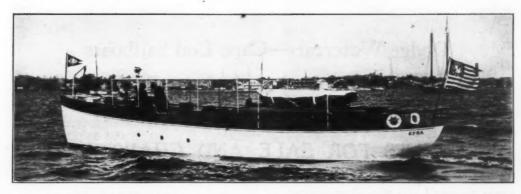
FOR CHARTER—No. 4077—Twin screw houseboat, 100°x18'3"x 3' draft. Has two 90 H.P. Winton motors which give speed of 12 M.P.H. Very large cruising radius. The accommodations for the owner's party are unusually large and comfortable, including five double and two single staterooms, and three bathrooms. Very large dining saloon. All in perfect condition. Full particulars, price and cabin plan from BURGESS, RIGG & MORGAN, LTD., 11 Broadway, New York City.

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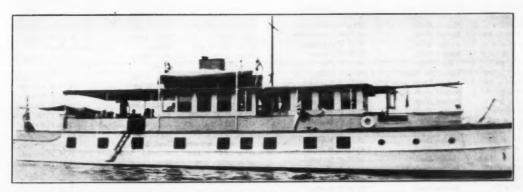
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Cable Address "RIGGING"



FOR SALE—No. 3386—Now has deck house amidships and is much handsomer than picture shows. Dimensions 56'x11'x2' draft. Built by Downs of Bayshore. Has two Sterling motors which are practically new. Speed 13 M.P.H. Must be seen to be appreciated. Very low price. Further particulars from BURGESS, RIGG & MORGAN, LTD., 11 Broadway, N. Y. City.



FOR SALE OR CHARTER-No. 4018-Twin screw house boat. Dimensions 80'x16'7''x3'6" draft. An unusually comfortable cruiser and always in demand for chartering. Exceptional accommodations with four large double staterooms and two bathrooms. Plenty of deck space and large dining and deck saloon. Two Sterling motors, in good condition. Further particulars from BURGESS, RIGG & MORGAN, LTD., 11 Broadway, New York City.



FOR SALE—No. 3350—Bridge deck power cruiser, designed by Alden and built in 1922. Has Model F.M. Sterling motor, 110 H.P. Double stateroom and saloon, sleep four. Very large cockpit with six chairs and seat. Everything in A-1 shape and looks like new. Low price for quick sale. Further particulars from BURGESS, RIGG & MORGAN, LTD., 11 Broadway, New York City.

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	CRUISER	(S
28'x10" x 8'6" x 3'	Raised Deck	15 H. P. Scripps
28' x 7'2" x 2'6"	Raised Deck	20 H. P. Continental
30' x 9'6" x 32"	Raised Deck	35 H. P. Erd
31' x 81/4' x 38"	Raised Deck	36 H. P. Redwing
31'4 x 8'6" x 2'6	Raised Deck	25 H. P. Locomobile
31' x 8'6" x 3'	Bridge Deck	25 H. P. Keystone
31'10" x 9'8" x 3'	Raised Deck	24 H. P. Palmer
33' x 8' x 2'6"	Raised Deck	40 H. P. Fay & Bowe
34' x 8'6" x 2'9"	Con. Play Boat	200 H. P. Hall Scott
35' x 8'6" x 2'6"	Bridge Deck	70 H. P. Kermath
36' x 9' x 3'	Raised Deck	40 H. P. Sterling
38' x 9' x 3'	Raised Deck	40 H. P. Doman
38' x 10' x 3'3"	Bridge Deck	24 H. P. Palmer
40' x 11' x 36"	Enc. Bridge Deck	42 H. P. Frisbie
40' x 9' x 3'6"	Raised Deck	(2) 20 H. P. Kermaths
40' x 10' x 2'6"	Bridge Deck	70 H. P. Kermath
40' x 10' x 3'	Raised Deck	60 H. P. Buffalo
40' x 10' x 2'10"	Bridge Deck	60 H. P. Scripps
48' x 10' x 2'10"	Bridge Deck	70 H. P. Scripps
48' x 16' x 3'	Raised Dock	40 H. P. Lathrop
40' x 10' x 3'	Bridge Deck	150 H. P. Sterling
41'5" x 9'10" x 3'	Elco Cruiser	42 H. P. Elco Marine
41' x 12' x 3'8"	Bridge Deck	40 H. P. Lathrop
43' x 11' x 2'9"	Bridge Deck	80 H. P. Buffalo
44' x 11' x 3'6"	Bridge Deck	70 H. P.Hall Scott
45' x 10'6" x 3'4"	Elco Cruiser	42 H. P.W. S. M.
45' x 18'3" x 2'9"	Bridge Deck	65 H. P.Scripps
46' x 10' x 3'	Bridge Deck	60 H. P. Wisconsin
46' x 10'8" x 3'2	Bridge Deck	(2) 65 H. P. Kermaths
50' x 11'6" x 3'	Bridge Deck	(2) 70 H. P. Maybach
51' x 10'3" x 4'3"	Bridge Deck	150 H. P. Seedway
53' x 10'6" x 4'	Bridge Deck	40 H. P. Lathrop
52' x 11'7" x 49"	Con. Bridge Deck	150 H. P. Speedway
54' x 11'2" x 3'2"	Bridge Deck	50 H. P. 20th Century
54' x 13' x 3'	Elco. Bridge Deck	(2) 42 H. P. Elco Marines
54' x 11'2" x 3'6"	Raised Deck	200 H. P. Van Blerck
56' x 12'6" x 3'	Raised Deck	90 H. P. Van Blerck
57' x 13'2" x 3'16"	Bridge Deck	55 H. P. Standard
60'5" x 12'7" x 3'6"	Bridge Deck	(2) 150 H. P. Speedways
60'3" x 11'6" x 3'9"	Bridge Deck	60 H. P. Scripps
61' x 13'6" x 5'	Matthews B. D.	85 H. P. Winton
68' x 15'4" x 4'	Bridge Deck	(2) 65 H. P. Mianus
71'8" x 15' x 4'	Bridge Deck	(2) 94 H. P. Sterlings
80' x 11'10" x 4'8"	Herreshoff B. D.	(2) 180 H. P. Speedways
83'9" x 14" x 4"	Bridge Deck	(2) 75 H. P. 29th Century
Three 34' x 8'8" x 2'	Elco Cruisettes	42 H. P. W. S. M.
82' x 14' x 41/4'	Bridge Deck	150 H. P. Speedwiny
94' x 131/6' x 5'	Bridge Deck	(2) 300 H. P. Sterling
101' x 15' x 2'6"	Bridge Deck	Steam Engine
101' x 19' x 5'	Bridge Deck	125 H. P. Diesels

27' x 9' x 4'2" Aux. Ketch 28' x 9'10" x 5" Aux. Yawl 29' x 9' x 1'6" 30' x 9' x 2' Aux. Sloop 15 H. P. Scripps Aux. Cat Boat 20 H. P. Continental 31' x 10'9" x 3'2" Aux. Ketch 35 H. P. Erd 32' x 11' x 5' 33' x 10' x 4'6'' 35' x 11'8'' x 3' Aux. Ketch 36 H. P. Redwing Aux. Cutter 25 H. P. Locomobile Aux. Yawl 25 H. P. Keystone 24 H. P. Palmer 37'10" x 11'4" x 3'6" Aux. Sloop 37' x 12' x 2'9" Sloop 40 H. P. Fay & Bowen 200 H. P. Hall Scott 38' x 10' x 3'6" Aux. Sloop 70 H. P. Kermath 40' x 12'6" x 4' Aux. Yawl 40 H. P. Sterling 42' x 131/4' x 7'9" Aux. Sloop 40 H. P. Doman 24 H. P. Palmer 43' x 12' x 4' Aux. Yawl 45' x 13'4" x 4'6" 49' x 12'4" x 6'2" Aux. Sch 42 H. P. Frisbie Aux. Yawl (2) 20 H. P. Kermaths 70 H. P. Kermath 60 H. P. Buffalo 60 H. P. Scripps 70 H. P. Scripps 40 H. P. Lathrop 150 H. P. Sterling 42 H. P. Elco Ma 40 H. P. Lathrop

51' x 14'3" x 5'6"	Aux. Schooner		
52'3" x 12' x 3'4"	Aux. Schooner		
52' x 14'4" x 4'10"	Staysail Schoone		
S8' x 15' x 4'10"	Aux. Ketch		
70' x 15'4" x 6'10"	Aux. Schooner		
72' x 14'6" x 9'9"	Aux. Schooner		
77' x 17'6" x 6'	Aux. Schooner		
50' x 14' x 3'6"	Aux. Schooner		
74' x 16' x 16'	Aux. Keel		
EX	PRESS CF		
42'10" x 10" x 2'9"	Express Cruiser		
42' x 9' x 2'6"	Express Cruiser		
43' x 8' x 3'	Express Cruiser		
46'6" x 9'6" x 3'3"	Express Cruiser		
50'6" x 8'6" x 3'2"	Express Cruiser		
50' x 8' x 2'6"	Express Cruiser		
50' x 10' x 3' .	Express Cruiser		

	20 H. P. Frisbie
	(no engine)
	5 H. P. Evinrude
	(no engine)
	16 H. P. Standard
	15 H. P. Scripps
	25 H. P. Mianus
	35 H. P. Peerless
	14 H. P. Hill Diesel
	7 H. P. Palmer
	25 H. P. Scripps
	40 H. P. Scripps
oner	15 H: P.Scripps
	60 H. P. Holmes
	50 H. P.Regel
	25 H. P.Scripps
	65 H. P.Standard
	49 H. P. Stearns
	35 H. P. Sterling
	33 21. 2 12 12 13 13 13
RI	ISERS
2110	LULINO
r (2) 200 H. P. Hall Scott

7 H. P. Brown

10 H. P. Palmer

6 H. P. Liberty

4 H. P. Palmer

15 H. P. Doman

20 H. P. Roberts

20 H. P. Gray

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42'10" x 10" x 2'9"	Express Cruiser (2) 200 H. P. Hall Scott
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46'6" x 9'6" x 3'3"	Express Cruiser	290 H. P. Van Blerck
50'6" x 8'6" x 3'2"	Express Cruiser	185 H. P. Van Blerck
50' x 8' x 2'6"	Express Cruiser	75 H. P. Sterling
50' x 10' x 3' -	Express Cruiser (2) 300 H. P. Sterling
52' x 12' x 2'9"	Express Cruiser (2) 200 H. P. Sterling
53' x 7'6" x 2'4"	Express Cruiser (2) 130 H. P. Speedways
62'4" x 11'3" x 3'	Exress Cruiser (2) 225 H. P. Sterling
66' x 11'4" x 3'2"	Herreshoff Exp. C. (2	290 H.P. Sterling
66' x 11'6" x 3'	Herreshoff Exp. C. (2) 200 H.P. Van Blerck

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45' x 13'5" x 3'	Mathie H. B.	(deck house)	i. P. Scrippe	
45' x 13'5" x 3'	Mathis H. B.		L. P. Standard	
50' x 14'6" x 3'3"	House Boat	126 F	I. P. Sterling	
50' x 14'3" x 3'	House Boat	97 l	I. P. Sterling	
70' x 17' x 3'	House Boat	35 F	L. P. Palmer	
80' x 18' x 3'6"	House Boat	(2) 65 H	i. P. Lathrops	
93' x 18' x 4'4"	House Boat	(2) 150 F	L.P. Wintons	
120' x 23' x 4'6"	House Boat	(2) 250 1	I. P. Wintons	

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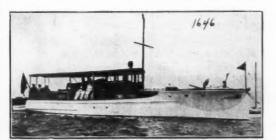
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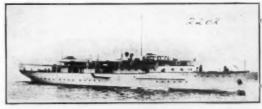
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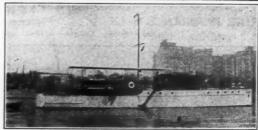
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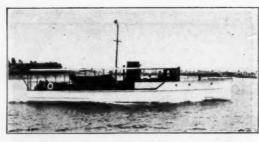
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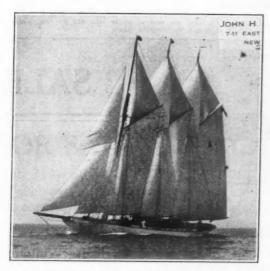


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A COMPLETE little cruiser—new in 1926. Sleeps seven. 6-cylinder Winton Engine. Speed 15 miles. Owner building new boat.

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Bargains in rebuilt motor boats and marine engines. All sizes. Send for new list. Hunter Boat Co., Dept. C, McHenry, Ill.

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FOR SALE—Hundred foot by hundred foot lot on Manhasset Bay in the new Carl G. Fisher Development, Bayview Colony, Port Washington, Long Island. All improvements completed, is cluding dock and floats, enclosed swimming pool, tennis courts, etc. Boat or yacht can be moored in the best of anchorages 500 feet from lot. Four yacht clubs in immediate vicinity, thirty-five minutes by electric train to Pennsylvania Station, New York City. Would make excellent site for summer or all year home for yachtsman. Address Box 15 Care MgToR BoatinG.

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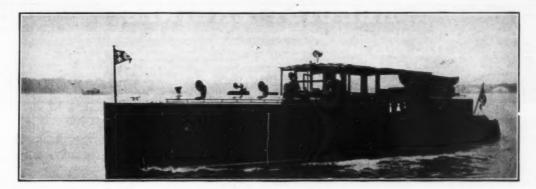
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Prices low to move quickly.

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Power—Two 12-cylinder, 450 H.P. Liberty Motors in excellent condition.

Maximum speed, 33 M.P.H. Cruising speed, 20 M.P.H.

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Sterling four-cylinder, four-cycle 28-35 horse power, in excellent condition, recently overhauled and rebuilt, 600 R.P.M., 4%x5½, weight about 800 pounds, Bosch dual battery and magneto ignition, suitable for cruiser or open boat. Owner installing larger motor. Price, 3040. Apply Box 14, care MoToR BoatinG, 119 West 40th St., New York.

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Auxiliary Schooner, 71'x16', \$8,000. Auxiliary
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25-ft. Mahogany Runabout; natural finish, like new; 6 cyl. 100 H.P. Model F. Scripps motor; also 22 ft. Mahogany Runabout with 100 H.P. motor, 6 cyl. Model F. and a 4 cyl. Model E. Medium duty Scripps motor for sale. N. JACOB-SEN, 175 Warburton Ave., Yonkers, N. Y.

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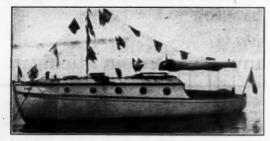
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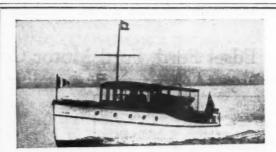
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For the Good of Boating UST as there are always two sides to every question, so are there usually

to every question, so are there usually two forces opposing each other in practically every problem in life. To the automobilist there is the nemesis of the traffic cop and to the yachtsman there is the opposing force of one hundred different elements, all tending to make boating less desirable and in some cases even un-

Perhaps it may be considered selfish on the part of the yachtsman to opnose commercial invasion of his favorite harbors, but on the other hand, a great many of these invasions are wholly uncalled for and constitute selfishness and that quality known as grabbing on the part of many of the commercial interests which invade. Boating is a tender plant and requires nurturing and nourishing in order to make safe and therefore feasible for the unskilled navigator. It requires lights and buoys and dredging and removal of wrecks and other elements which tend to discourage and often endanger boatmen. There is a definite place for an individual or association to watch over the yachtsman. Obviously an individual cannot handle the job as well as an organization and boating is fortunate in being watched over and cared for by an organization which has been functioning for years with its sole and primary object to care for the boat-

The Waterway League of America has for almost twenty years occupied a unique position in the annals of boating, unique inasmuch as it has enlisted a large group of active workers who at no profit and very often at considerable expense to themselves, has represented boat owners in themselves, has represented boat owners in this country very much as a lawyer would represent his client. The Waterway League was formed in 1909 by a group of enthusiasts who recognized the need for organized intervention when commercial interests were working to gradually force them out of what had formerly been a safe and snug harbor for their boats, as well as to secure the erection of lights, etc., which individuals had tried for unsuccessfully.

Its membership extends throughout the entire country and consists of boat owners and enthusiasts in all walks of life from the yacht club member whose boat exthe yacht club member whose boat ex-ists only in his dreams, to the owner of an outboard powered row boat to the owner of a palatial cruising yacht. Its flag is flown from hundreds of mast heads and is recognized by all boating organizations with the courtesies it deserves. Most of with the courtesies it deserves. Most of the yacht clubs throughout the country are members of the League and from the numerous letters received it shows that no problem is too large or too small for this body to solve. Surely, such an organi-zation working unselfishly for the benefit of the sport at large merits the support of everyone interested in the water.

Membership dues have purposely been made very low being only \$5.00 a year so as to reach the rank and file of the boating public. Beside enlisting in such a worthy cause, membership carries with it a sub-scription at no extra charge, to a monthly publication called the Bulletin, wherein yacht club news and notes and many other questions of interest to boat owners are discussed. The commodore of every yacht club should be able to supply information concerning the League or if further details are required, it may be obtained from the executive secretary, Commodore A. E. Barton, 170 Joralemon Street, Brooklyn, New York.



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They Hold All Records

(Continued from page 23)

first time high speeds had been attained on salt water, the previous record of 1921 having been made on fresh water, a speed of 80.3212 m.p.h. was established by Miss America as the mean with the best run of eight, showing a speed of 80.4289 m.p.h. The full results of these trials were as follows:

Run ·	Direction	Elapsed Time	Speed M P H
1	South	45.08 seconds	79.8580
2	North	44.94 seconds	80.1068
3	South	45.04 seconds	79.9289
4	North	44.83 seconds	80.3033
5	South	44.88 seconds	80.2139
6	North	44.76 seconds	80.4289
7	South	44.98 seconds	80.0355
8	North	44.83 seconds	80.3033

Fastest run South-Time 44.88 seconds. Fastest run North-Time 44.76 seconds.

Average speed, best two runs—80.3212 miles per hour. As a result of Gar Wood's enterprise and enthusiasm for driving boats of extremely high speeds, it is quite apparent that all records will be safe in his hands. He not only has shown that he is able to design and build these high speed creations, but also takes the helm and drives them to the limit himself. Gar Wood is one of the few men in the country who understands fully the many and complicated probtry who understands fully the many and complicated prob-lems which arise when a boat is driven at such terrific speeds over the water. While Miss America II, the early record holder was powered with four engines, totalling 1,800 h. p., the latest Miss America V, which came within a hair of equalling the world's record of the earlier boat, had only two engines, with a total of about 1,100 h.p. The fact that the newer boat is able to attain the same speed with two engines that the earlier boat reached with four, speaks well for the progress in both boat and engine design.

Other Records of Miss Americas

Miss America I

Year	Race	Length of Course	Speed M P H	1
1920	British International	Trophy 38.1	61.5	
1920	British International	Trophy 7.62	65.1	
1920	Gold Cup	30.0	70.0	
1920	Gold Cup	5.0	71.4	
1920	One Mile Das	hes 6.0	76.655*	
1920	One Mile Das	hes 1.0	77.698 (1)	

Miss America II

Year	Race Leng	th of Course	Speed M	P	H
1921	British International Trophy	46.06	59.8		
1921	British International Trophy	5.758	71.1		
1921	One Mile Dashes	6.0	80.567*		
1921	One Mile Dashes	1.0	81.577	(1)

Time, seconds	Speed M.P.H.
44.27	81.318 79.040
44.19	81.466
45.05 44.13	79.911 81.577 (1)
45.24	79.570
	Time, seconds 44.27 45.51 44.19 45.05 44.13

Miss America III

Year	Race Leng	gth of Course	Speed M	P	H
1925	Governors Trophy	15.0	57.7		
1925	Governors Trophy	3.0	63.9		
1926	British International Trophy	34.5	60.75		
1926	British International Trophy	y 5.75	63.43		

Miss America IV

Year		Race	Length	of Course	Speed	M	P	F
1925	British	International	Trophy	34.5	61.	09		
1925	British	International	Trophy	11.5	67.	23		
1925	British	International	Trophy	5.75	71.	97		

Miss America V

Year	Race	Length	of Course	Speed M	PH
1925	British International		34.5	61.11	-
	British International		11.5	67.07	
1925	British International	Trophy	5.75	72.70	
1927	One Mile Dash	es	1.0	80.3212	10:
1927	One Mile Dash	es	1.0	80.4289	(1)

*Average of 6 One Mile Dashes with and against current.

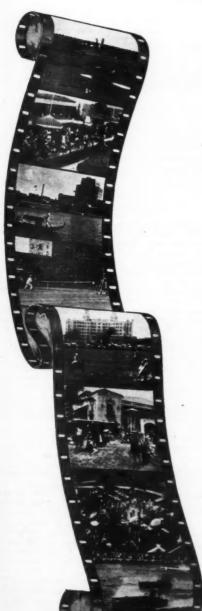
(1) Best One Mile down stream with current.

(Continued on page 80)

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Up and Down Glen Canyon

(Continued from page 21)

These were almost the only attempts made to convert the Indian of the Colorado Desert. His stolid emotionless temperament has refused to respond alike to the pomp and pageantry of the Catholic or the more rational appeal of the Protestant. Before the coming of the white man he had no

Protestant. Before the coming of the white man he had no gods, so what use in complicating life by annexing them now? Little has ever stirred the Yuma and his desert brethren beyond the belly's need, and if one diety has precedence over another with him it is the God of Grub.

Until the completion of the transcontinental railways to Los Angeles fifty years ago, the lower Colorado furnished the final stage of the most popular land and water route from the Atlantic Ocean ports to points in the interior of the Southwest. Going to Panama by steamer, the traveller crossed the isthmus by rail and proceeded again by steamer to Mazatlan or Guaymas on the west coast of Mexico. Here smaller steamers awaited him for the voyage to the head of the Gulf of California. Finally he transhipped to shallow draught stern-wheelers at a point where the river bars began to push too close to the surface to make practicable navigation with a propeller-driven craft.

a propeller-driven craft.

If the river was in its annual rise and overflow, which occurred in the late spring and early summer months, the upbound boat had little to contend with but a strong current and an uncertain channel; but at other times, particularly in the winter and early spring months, the voyage was a most difficult and troublesome adventure.

ld troublesome adventure. Each year's overflow cut out entirely new channels, making complete re-charting of the river necessary each fall. Often, a complete re-charting of the river necessary each fall. Often, indeed, bars and deep water would change places between one sun and another. Sometimes a boat was as much as two weeks in covering the scant hundred and seventy-five miles between the Gulf and Yuma, and many instances are on record where the impatient passengers were put ashore to complete their journey on foot, leaving their baggage to follow on by steam.

When a bar was encountered on the river at a point where the channel had run on the last voyage, the bow of the boat was nosed tentatively along the obstruction in an effort to feel a passage-way. Failing in this, she was backed off a good a passage-way. Failing in this, she was backed off a good distance and the engines set going at full speed while she charged full tilt upon the bar. Usually she stuck, but occasionally she bruised her way through. If stopped, she was again backed off if possible and the charge repeated. If three or four butts failed to clear the way, men were put out in boats to sound for a softer place. If the way still proved blocked all the way across, as a dernier resort a cluster of dynamite sticks was tied to a marlin spike, sunk upon the bar and exploded.

har and exploded.

After thus shooting up a bar, unless the occasion for pressing on at once was most urgent, ship hands were put off in small boats to pick up the fish killed by the explosion. These were mostly catfish and mullet, both of great size and the latter of rare edibility. The stories told of the amount of fish killed by some of these shots are a bit difficult to swallow. One of the best of them is if a stern-wheeler that drew so much water after she had her extra load of dynamited fish aboard that she could not pass through the hole that had taken her last stick of powder to open up; truly a modern instance of the monkey which could not withdraw a fistful of nuts from the operture through which his unclosed paw

Many other stories are told of old-time river boating on the lower Colorado that indicate conditions which must have tried the tempers and souls of men to the point of losing both. Even today, in Yuma and the Needles, the expression "crooked as the Colorado" and "cussed as a river boatman" are superlatives in their respective fields of application.

are superlatives in their respective fields of application. Such was the swirling, heaving, slow-flowing river of red upon which I was again afloat after bidding good-bye to my companions at the Needles. Diametrically different physically from the savage beast I had found raging at its bars in the upper canyons, there was now a silent, insidious, renlentless treachery that was equally potent in its capacity to do harm. Possibly, from the very way its quiet air of innocuousness has of lulling fears to sleep, the river of the delta is more dangerous than the upper, where the roaring challenge keeps one of lulling fears to sleep, the river of the delta is more dangerous than the upper, where the roaring challenge keeps one continually on his guard. The threat of the Colorado canyons might be compared to that of the blustering, open frontal attack of the lion, that of the spreading lower river to the silent, sneaking but equally deadly strangling of the boa constrictor which it so much resembles both physically and in character. In any event, I was to know completer disaster, so far as damage to boat and outfit was concerned, before (Continued on page 74)



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Up and Down Glen Canyon

(Continued from page 72)

my lower-river voyage was over than I was ever to meet in the savagest rapids of even the Grand Canyon itself. This not, I should add, refer to the stretch between Needles does and Yuma, which, as I have stated, is almost empty of menace.

My first day below the Needles proved slow, tedious going on account of the spreading shallows which made it difficult to use my outboard save in the infrequent stretches where a narrowed channel made for deeper water. In the afternoon I had my first experience with sand waves. This peculiar phenomenon occurs only on rivers which have a fairly strong current and a shifting sandy bottom. The Missouri fulfills this condition, yet on that river I have never seen the caving of sandbars result in anything worse than irregular boils. They are probably at their worst on the San Juan, tributary of the upper Colorado, where one of the Geological Survey expeditions, after losing one boat, had to exercise great care even in crossings to prevent destruction of valuable outfit.

The waves I encountered were at a shallow part of the river a mile above the Topock bridge. They were two or three feet in height and ran so close together that the bow of even my fourteen-foot boat had no chance to rise from one to the next. The buried bow dipped up water by the bucketful, and water, moreover, that must have been a fifth sand in volume and more than that by weight. It was the rapid accumulation of sand in the bottom of the boat which finally forced me to ease out of the heaviest of the waves waves before the weight settled it too far into the churning slush.

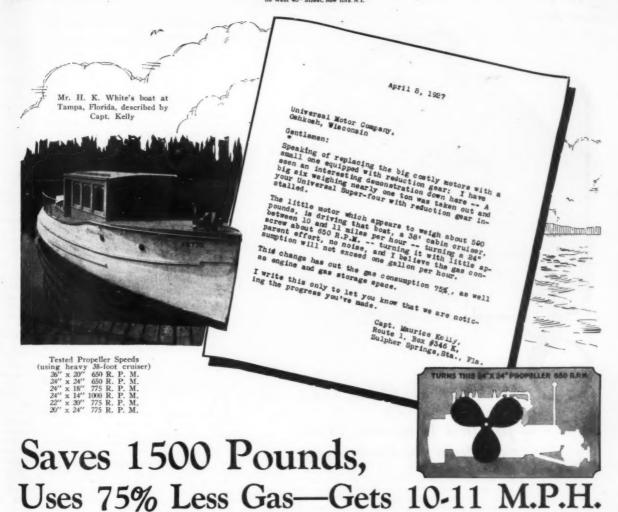
A line of sand waves, sighted well in advance, is of little enace. The danger of them lies in the fact that the sudden breaking down of the wall of a submerged bar from hidden currents may start them running without warning at a point previously only marked by swirling currents. The threat is currents may start them running without warning at a point previously only marked by swirling currents. The threat is less from the wave itself than from the water it carries. Water can be bailed but sand settles almost instantly in the bottom of the boat. Worse still, a boat swamped by clear or only muddy water will float even when bottom side up; boats filled by violent sand waves are usually carried down and such as the relambles of the crumbling har beautiful to the relambles of the crumbling har beautiful. sucked into the relentless clutches of the crumbling bar be-neath. Although this has happened many times on the San Juan I have never heard of an instance of it on the main Colorado.

The Narrows of the Colorado now crossed by the Santa Fe railway and the State Highway bridges is the site of the Topock Dam, mentioned as a possible alternative for the greater structure proposed for Boulder Canyon. Designed primarily to control the river and minimize the flood danger to Imperial Valley, the Topock Dam would prove of little value for power and irrigation, and for that reason is not looked upon with favor by those taking a comprehensive view of Colorado River develonment. of Colorado River development.

Mojave Canyon heads below the Topock Narrows and winds on for several miles between black basaltic walls. The curon for several miles between black basatic walls. The current is quiet at low water, but at one point there is an almost Z-shaped series of bends which must make for some very heavy whirlpools at flood stages. After the tremendous gorges of Grand and Glen and even Black Canyon, Mojave seemed no more than a very ordinary little defile. struck me as just common or garden black-and-tan, with little or no suggestion of the wild riots of reds and umbers and gas-flame blues of the upper canyons. But the anti-climax was possibly due to the fact that I came from the wrong direction. Lieutenant Ives, approaching Mojave Canyon from the carissa flats of the delta, saw in it one of the marvels of creation. Possibly, as in the case of Roaring Rapids in Black Canyon, the young officer was just a bit the victim of his imagination or poetic temperament. But in any event, his Doréesque vision of Mojave Canyon, like a Whistler nocturne, is worth while for itself alone, however little it suggests the original inspiration.

"A low purple gateway and a splendid corridor with massive red walls, formed the entrance to the canon. At the head of this avenue frowning mountains, piled one above the other, seemed to block the way. An abrupt turn at the base of the apparent barrier revealed a cavern-like approach to of the apparent barrier revealed a cavern-like approach to the profound chasm beyond. A scene of such imposing grandeur as that which now presented itself I have never before witnessed. On either side majestic cliffs, hundreds of feet in height, rose perpendicularly from the water. As the river wound through the narrow enclosure every turn developed some sublime effect or startling novelty in the view. Brilliant tints of purple, green, brown, red and white illuminated the stupendous surfaces and relieved their sombre monotony.

(Continued on page 76)



Captain Kelly is no less amazed than you will be the first time you see a Universal Silent Reduction Drive Motor "do its stuff."

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ROBERT BOSCH MAGNETO CO., INC.

r with American Bosch Magneto Corp.



Up and Down Glen Canyon

(Continued from page 74)
Far above, clear and distinct upon the narrow strip ot sky,

Far above, clear and distinct upon the narrow strip of sky, turrets, spires, jagged statue-like peaks and grotesque pinnacles overlooked the deep abyss.

"The waning day found us still threading the windings of this wonderful defile, and the approach of twilight enhanced the wild romance of the scenery. The bright colors faded and blended into a dark uniform gray. The rocks assumed dim and exaggerated shapes, and seemed to flit like giant spectres in pursuit and retreat along the shadowy vista. A solemn stillness reigned in the darkening avenue, broken only the solemn stillness reigned in the darkening avenue, broken only the solemn stillness reigned in the darkening avenue, broken only the solemn stillness reigned in the darkening avenue, broken only the solemn stillness reigned in the darkening avenue, broken only the solemn stillness reigned in the darkening avenue, broken only the solemn stillness reigned in the darkening avenue. solemn stillness reigned in the darkening avenue, broken only by the splash of the paddles or the cry of a solitary heron, startled by our approach from his perch on the brink of some overhanging cliff." overhanging cliff.

This description of the passage of the gorge through the Mojave mountains is as fine as anything that has ever been inspired by the incomparably mightier chasms of the Grand Canyon series. Indeed, as one finds in a further reading of the Ives report, the spirited young officer, having exhausted the stuff in his heavy artillery lockers upon the rather insignificant gorges of Mojave and Bill Williams, found himself without adequate descriptive ammunition when he came up against the real thing at Black Canyon and the still more stupendom Grand, which he reached by pack-train at the mouth of Diamond Creek.

mond Creek.

Ives' description of the dark chasm which we now call Bill Williams Canyon is another striking bit of word-painting, although I am rather inclined to think that he splashed a deal too much paint. I mean to say that the somber gorge never struck me as unfolding anything approaching the wild welter of colors that Ives laid upon his canvas in depicting it.

"... the scenery at every moment became wilder and more romantic. New and surprising effects of coloring added to

"... the scenery at every moment became wilder and more romantic. New and surprising effects of coloring added to the beauty of the vista. In the foreground light and delicate tints predominated, and broad surface lines of lilac, pearl color, pink and white contrasted strongly with the somber masses piled up behind. In their very midst a single pile of vivid blood-red rose in isolated prominence. A few miles higher a narrow gate opened into the heart of the mountains. On one side of the entrance was a dark red column, on the other a leaning tower of the same color overhung the pass. one side of the entrance was a dark red column, on the other a leaning tower of the same color overhung the pass, the ponderous rock seeming to fall as we passed beneath Rich hues of blue, green and purple, relieved here and there by veins of pink and white, were blended in a brilliant confusion upon the sides of the canon, producing a weird-like and unearthly effect, which the fantastic shapes and outlines of the enclosing walls did not diminish. For six miles we followed the windings of the river through this fairy-like pass, where every turn varied and heightened the interest of pass, where every turn varied and heightened the interest of

pass, where every turn varied and heightened the interest of the pageant..."

Neither does "fairy-like" pass quite render the atmosphere of that sun-baked gash of riven granite. The description is magnificent—but not Bill Williams.

And yet—the desert works an unaccountable necromancy. There were times on this very voyage—especially in the half lights of dawn and twilight—when I would have sworn that there were a hundred tints and shades on rock and water and sand and sky that I knew perfectly well would fade and dissolve with the coming of the garish light of day. One has to record these pictures, either with brush or pencil, at they unfold, else the inspiration fades with vision. The golds magic of desert mornings and evenings de-alchemized to the base metals of commonplaceness when I tried to write of them by the light of day.

But there was one dawn of which I tried to preserve the

But there was one dawn of which I tried to preserve the impression as it stole upon me after I had floated all night with the undulant ebony current of the silen river. The blurred with the undulant ebony current of the silen river. The blurred scrawls of the greasy pages of the old diary still stir me to an indulgent smile when I try to read them by daylight, but the twice or thrice I have puzzled through them in the dusiness of the coming dawn something of the original desert mage has been recaptured. It would be too much to expect to put it over with the printed word, especially to one who has not thrilled to the original experience—but here is the whole foolish rhapsody in any event.

"An hour before sunrise on the Colorado! The morning

foolish rhapsody in any event.

"An hour before sunrise on the Colorado! The morning star, just clearing the tops of the willows at the next bend throws a clear path like a finely-cut gold band across the unrippling water. The Pleiades, a few degrees higher, pause for an instant with the lower-most star of the dipper handle touching the tip of a pinnacle of the jagged Cocopahs. Orion and his Belt which, last night, floated up out of the east in a languid horizontal, has now swung to a perpendicular and is diving behind the earth-to-heaven reared curtain of the western mountains. western mountains.

(Continued on page 78)

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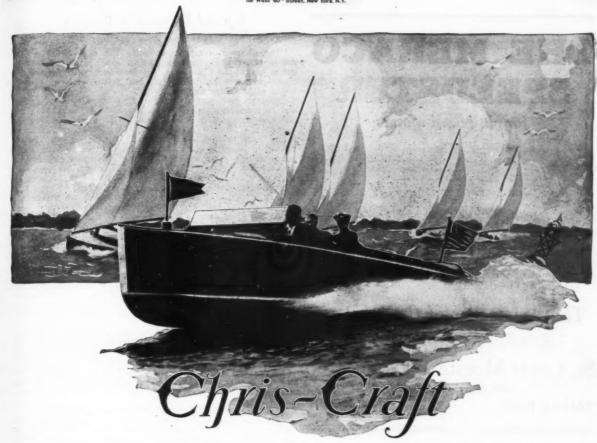
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Up and Down Glen Canyon

(Continued from page 76)

"The silence is complete—enfolding like a cloak. There is not a rustle from the bank, not a splash from the water, not a whirr from the air. No movement save the steady, almost imperceptible drift of my boat in the weaving, winding eddies of the silent current.

"Suddenly the clear river-path of the morning star quivers and trembles through its length and a chill creeps over the water as the earliest zephyr from the Gulf moves on to the mountains. Now the dust of lesser stars in the east are losing their pricking sharpness, with the mornig star fading to a pale lemon against the paling sky. Overhead the vault of heaven is changing from a dusky anthracite to a deep unfathomable purple. In the west the mountains are beginning to take shape, but misty and indistinct, like the figures on Overhead the vault ancient tapestry.

"And are these the mountains that blotted out the setting sun in his declining dip last night? At that time they were miles and miles away. Just this side of the setting sun that kindled each jutting crag with flames of scarlet and crimson, they appeared; and their canyons, floating full of purple mist as they lay in the deeper shadows, seemed set in, and under, and more remote and unattainable than the peaks.

"But now look! They are coming out fast in the new day's reflected light. Each soaring pinnacle, each rocky buttress is chiseled sharp and clear from its neighbor, and the whole mass appears to rise from a base that can not possibly be farther away than the flats beyond the fringing willows. "Again the puff of breeze, and again the ripple on the water—and the chill.

"Back in the east the morning star has faded to an unfixable point of whiteness and blurred to nothingness. A widening arc of fawn and saffron has crept up from beyond the low desert rim and is flaring toward the zenith, its light radiating from a pool of intenser color just to the north of the place where a range of fantastic pinto hills runs out into wind-smoothed dunes. Here the sun will make his morning bow.

"Again the breeze, the ripple and the wafted chill.

"The boat crunches reclingly along a submerged snag, from the extended end of which a ghostly heron, rising with an ear-splitting squawk, flails his way through the barrier of the drooping willows. Beyond the bend a flock of pelicans takes alarm and wing simultaneously, floundering away through air and water with the din and confusion of an army breaking

"From every willow comes pouring a bunch of frightened kingfishers, each screaming for himself and plainly under the delusion that he is the only one disturbed. From above and below gulls, gray and white, come sweeping and wheeling and uttering their insistent screams with every wingbeat.

"A flock of a dozen cormorant comes skimping along the water included their heads querylayers from side to side and

water, jerking their heads querulously from side to side and adding with wing and cry to the unloosed bedlam. Avocet, snipe and kildeer flash back and forth without alighting, nervous and excited at the unwonted disturbance of the desert

"Above, below and roundabout, all is excitement in the realm of birds, save where, in the topmost branches of a dead cotton-wood, a band of buzzards, secure as lepers in their immunity from molestation, sleepily raise their heads, only to poke them back to the unfragrant shelter of half-raised wings.

back to the untragrant shelter of half-raised wings.

"Over to the east the breeze has set smoking a smouldering fire in the peat, started, perhaps, miles away and weeks before, by cattlemen or pig-hunters, and a broad patch of bituminous blackness spreads across the kindling brightness of the morning sky, quenching and deeping its coloring and throwing the river into the shadowed duskiness of night again.

"Then of a sudden up leans the sum rad as a forcet fire."

"Then of a sudden up leaps the sun, red as a forest fire, while the river under its screen of smoke wells on with the sanguine blackness of a pool of old blood. Through the smoke-pall the sun, standing with the lower limb of its disc resting on the rim of the plain, looms half as high as the pinto hills.

"Now the fire dies as suddenly as it flared into life. The morning breeze, rending the smoke-screen, lets in a flood of light upon the river, the gently rippling waters of which beam in the somnolent shimmer of molten gold.

"Gradually the smoke dissolves and drifts away, the sum shrinks to a glittering ball of blinding fire, and full day has dawned upon the lower Colorado."

All of which early goog to arous that the scatic large upon the

All of which only goes to prove that the poetic Ives was not the only voyageur guilty of letting the witchery of the red desert river go to his young head.

(To be continued)

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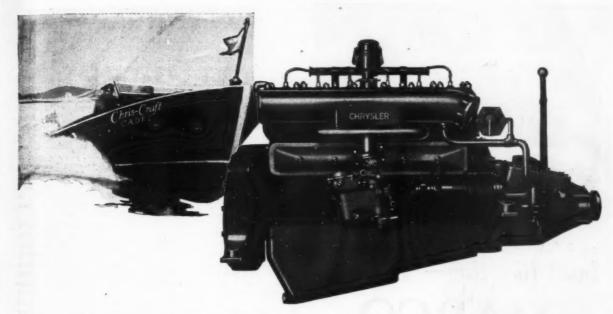
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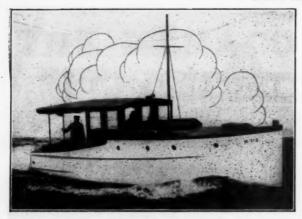
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Skipper Loomis Cruising in Europe

(Continued from page 11)

Lucette, a 40 foot schooner with ample auxiliary power, and while her lines show her to be an able, seaworthy craft, Tom Ratsey, the sailmaker of Cowes, has described her as a boat that will go a long way but take a long time getting there. "The crew will consist of Mrs. Loomis, Paul Squibb, previously known as the sea-going gadget of the Hippocampus, Major A. W. Noott, owner of Lucette, and myself. We shall also have a paid hand, and if he works out as well as Barkham did on the Channel cruise in Adastra in '24 he will be a host in himself. Present indications are, however, that he will be chiefly employed in the galley. chiefly employed in the galley.

"Starting from Lowestoft on the east coast of England, we plan to sail straight across the North Seat to Brunsbuttle, a distance of a little more than 300 miles. The North Sea being what it is this will probably be a shakedown cruise in the full meaning of the phrase. Then at Brunsbuttle, across the way from Cuxhaven, we hope to find the Kiel Canal accessible to Anglo-American schooners, pass through it under our own

"We hope to visit Copenhagen and intermediate ports, work up the Cattegat to Gothenburg, Sweden, and there enter the Gotha Canal which is of about the same antiquity as our own Connecting various lakes, including Venern, the third largest body of fresh water in Europe. The canal rises more feet above the sea than I can remember at this moment, is about 50 miles in length, exclusive of lakes, and has a lock or two for every mile. It will carry us to the town of Mem on a tributary of the Baltic Sea, and from there we expect to continue among islands to Stockholm, which will be our farthest north. "Mrs. Loomis plans to leave Lucette after we have been under

way a month and we expect to be joined after her departure by Dr. Louis Casamajor, a New York psychiarist. He will join us in the hope that his professional services will not be needed, and we shall then proceed down the Baltic on short daylight runs and try to see as much of the Swedish coast as we do of the sea. Returning in due course to Kiel, we hope to find ourselves once more in the North Sea and to continue our leisurely cruising along the Dutch, Belgian, and French coasts, giving up Lucette at the Isle of Wight a few days prior to Cowes Week. If the cruise proceeds as planned we shall have covered 1600 miles by the time our charter period is up, and shall have

*Mrs. Loomis and I were first attracted to the idea of a Baltic cruise in 1924 when a friend told us that the Baltic is the cruising man's paradise. As he painted it there are no tides to contend with and the winds are so disheartened by centurylong association with mankind that they never blow harder than three or four and always die down at night when all honest cruising men like to be lying down below. According to our friend one never has to worry about ground tackle in the Baltic because the obliging Swedish government provides sort of hitching posts in every harbor where visiting yachtsmen secure their craft on finishing a run. We shall be disappointed if the Baltic isn't even more delightful than our friend pictured it.

'For the benefit of your readers who are parents and who wonder what we do with our family I may add that we are parking both the children with friends in London. As they are aged four and one they are not yet capable of standing their tricks at the wheel and so we leave them behind with mingled feelings of regret and relief.

"Wind and weather again permitting, I hope to get the first installment of the cruise story to you in time for the Aguust issue, and in that installment I shall try to describe Lucette and our North Sea experiences—which last I sincerely hope will be town and uninteresting." will be tame and uninteresting.'

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(Continu	ued from page 70)	
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WHEN you have finally made up your mind about which boat you are going to buy, you will find it a comfort to know that the one you have decided on is not merely foremost in some one particular but that it is a thoroughbred in every respect. Your attention may have been attracted by a certain feature. But it is the perfect combination and balance of every essential feature that counts—and that is what you find in Baby Gar Jr.

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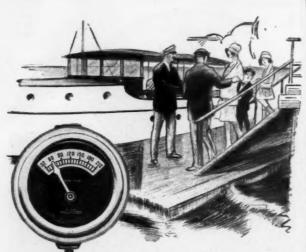


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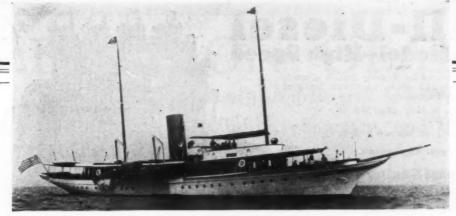
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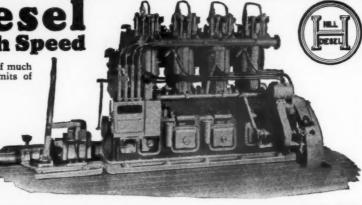
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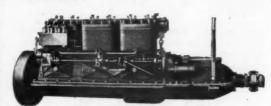
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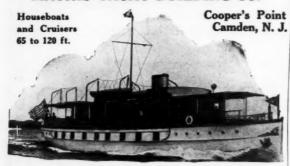
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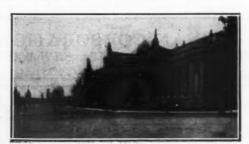
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The NEW

GROCO OIL COOLER

Improved and More Efficient

BY equipping your engine with the new GROCO Oil Cooler you will add many years to its life. Most engine troubles and failures are due to poor lubrication. By keeping the oil properly cooled you insure yourself against expensive repair bills and have by far a better running engine. Oil is guaranteed to be returned to the motor at the same temperature as the circulating water.

FIVE SIZES and COMBINATIONS \$35.00 to \$100.00

Write today for descriptive literature.

GROSS MECHANICAL LABORATORIES

1703 W. Baltimore Street

Baltimore, Md.



THE details embodied in the construction of this new craft are the results of our many years' experience in aircraft building for the United States Government.

Construction: Planking of selected mahogany natural finish. Frames and ribs of airplane spruce. Keel of one piece oak, Brass fastened throughout. Brass feathered seam construction.

Double cockpit with comfortably cushioned seats. Mahogany deck with ruled white seams. Solid Brass fastened throughout. Solid Brass Cutwater. Literature and prices sent on request.



Sold by

N. Y. JOHNSON MOTOR COMPANY

11 Central Park West NEW YORK, N. Y.



LAST MINUTE PICK-UPS ARE HERE

Oberdorfer Automatic Electric Pumps, Searchlights, Whistles, Flags, Anchors and everything in worth-while Marine Hardware for Sail or Power Boat.

Special Running Lights, Water-tight Plugs, Port Lights, Etc. Equipment that is exclusive with us.

Let us quote you or have our representative call

DURKEE-GUINAN CORPORATION 29 SOUTH STREET 37 - 39 OLD SLIP **NEW YORK**



Scooting back from a fishing trip

THIS square stem canoe is especially designed for portable mot Its shallow draft allows you to go any place that a regular car will go. Durable too—built to stand the constant vibration the motor.

Free illustrated catalog gives prices and complete informat about sailing canoes, square stem canoes, dinghies, etc. Witoday. Old Town Canoe Co. 169 Middle St., Old Town, Mai

Old Town Canoes

Is Your Boat For Sale?

Y OU can find a buyer for your boat quickly and at the price you want by using MoToR BoatinG's Market Place. MoToR BoatinG is read by many thousand more boating enthusiasts than any other boating magazine. For Sale advertisements in MoToR BoatinG's Market Place usually find a buyer -and that is what you want. Advertise your boat in the July MoToR BoatinG, forms close June tenth. For advertising rates see page 66.

McToR BoatinG, 119 W. 40th St., New York, N. Y.

Canadian "Wild Cat," Queen of the Waters



45 M. P. H., 150 H.P. Scripps . . . \$4000.00

40 M. P. H., 100 H.P. Scripps . . . \$3250.00

The World's Finest and Fastest Pleasure Craft

Made in Ontario

NO summer home on the water is complete without a Canadian "Wild Cat." The most beautiful boat made. Their upper lines are keen and striking, with running lines that speak for themselves when you "give her the gun" and pass boats having 50 per cent. more power.

Designed and built in perfect balance, and driven through a gear box with propeller shaft nearly in same plane of boat's travel.

They straighten out on the water in place of running up hill. That's why a seven-passenger, 24-foot Wild Cat runs better than 40 miles per hour with a 100 H.P. motor.

10 MILES TO A GALLON OF GAS

Look them all over to see if you can find another that will equal this performance. If you are thinking of getting a fast boat this year, just drop us a line and we will arrange a demonstration with the nearest Wild Cat. No matter where you are, the "Wild Cat" will get there and give you a new thrill.

ONTARIO BOAT & ENGINE WORKS, Wallaceburg, Ont.



All Under One Glass

Indirectly Illuminated

THE new Elgin Unit Control Board, enclosing all essential instruments under one glass, is now available to every motor-boat owner. Contains an Elgin Chronometric Tachometer, Ammeter, Oil Pressure Gauge, Motor Temperature Gauge, Air Gauge for Gasoline line, and a 6-volt lamp.

Gasoline line, and a 6-volt lamp.

Write for Complete Specifications

Elgin National Watch Company

86 East Randolph Street, Chicago, U. S. A.

City Electric Service for Your Cruiser

UNIVERSAL Marine Electric Plants are truly marine type, stow in tight quarters, are very accessible and with four-cylinder power silently deliver smooth, flickerless light. Sizes 1½ K.W. to 12½ K.W. in 32, 60, 110, 220 volts.

Typical installations include the "Wasp", Wm. Wrigley, Ir., Chicago; "Edris": Thomas H. Ince, Culver City, Cal., "Cigarette", Gordon Hammersley, New York City; and "Samona", W. J. Hole, Los Angeles. Write for Catalor and Prices.

UNIVERSAL MOTOR COMPANY

Ceape St., Oshkosh, Wis.

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Marine Motors, Industrial Engines, Pumping Units

Detroit Marine Big Six

For high speed runabouts and express cruisers the Detroit Marine Big Six (300 H.P.) engines not only give excellent and economical service but have a wide range of flexibility and are unusually free from vibration.

Write for descriptive literature.

Detroit Marine-Aero Engine Co

419 Connecticut Avenue

Detroit, Michigan

When writing to advertisers please mention MoToR BOATING, the National Magazine of Motor Boating, 119 West 40th Street, New York

Enjoy This New Sport AKWA-SKEEING

Better Than Aquaplaning NO SPILLS-But Plenty of Thrills

Experience Unnecessary because Akwa-Skees Balance Them-



ET in this new water sport and enjoy Some real good and exciting fun. Trethe wishy waves as fast as 30 miles an hour more on Dolphin Akwa-Skees. Much safer and more controllable than an aquaplane. At miles an hour they support a 250 lb. man. Mounted and dismounted from boat.

Akwa-Skees are carefully made of mahogany. Brass trimmings. Price per set, \$35.00.

For sale at A. G. Spalding & Bros. Abercrombie & Fitch, New York, and leading sporting goods and department stores everywhere, or direct by express from:

DOLPHIN AKWA-SKEE CO. Huntington, Long Island, New York

Interesting proposition for Boat Dealers and Boat Owner Agents. Write today for details.



America's Standard

WHEELER-SCHEBLER CARBURETOR CO. INDIANAPOLIS

Cruise to Maine This Summer

(Continued from page 26)

another fifteen minutes again anchor, in Somes Harbor. Somes House was built in revolutionary times. The old saw-mill across the stream, it was making boards in 1776. Tell them you wants a chicken and popover dinner and that Huck

them you wants a chicken and popover dinner and that Huck says so. Words, they cannot describe what you gets, but after you has stuffed yourself until you groans, you will ever after compare all other cooking to it.

Ninth Day: (Sunday.) Westbound again, to Starboard Rock, Vinal Haven Island. Called "Winter Harbor" on the chart. If you can find this place, you are a real yachtsman. I leads you here because no man has ever been there. It is primeval. Look for Hen Island on the chart, about a mile below the entrance to Fox Island Thorofare. A tiny little passage about a mile long. Look out for the two foot rock in the middle. Anchor off Starboard Rock (not named on the chart) a pinnacle so steep

Starboard Rock (not named on the chart) a pinnacle so steep you can hardly climb it.

Tenth Day: (Monday.) Christmas Cove, Maine. Run around south of Vinal Haven Island and lay a course to Davis Islands, thence going over a familiar course until you round Thrumcap Island and anchor in the miniature harbor of Christmas Cove. If you gets there after August tenth, look me up. I stops at the hotel right in front of you.

Eleventh Day: (Tuesday.) Bath and Quohog Bay. Run around to Boothbay and then up the Inside Passage to Bath, about twenty miles. This is another one of them waterways so narrow you touches the shore with your hand and so deep that the steamers come down through it. Tie up at Bath for lunch and supplies. In the afternoon, run down the Kennebec River, around Small Point and anchor for the night in Quahaug Bay or any other of the hundreds of places you finds on the chart.

or any other of the hundreds of places you finds on the chart. Twelfth Day: (Wednesday.) Portland. Cruise into Casco Bay and explore its thousands of islands, reaching Portland after a two or three hour run. You finds a good welcome and a free mooring by stopping at either the Portland Yacht Club or the Power Boat Club.

Thirteenth Day: (Thursday.) Gloucester, Massachusetts. You bids good bye to the Maine coast and if you doesn't feel a little homesick for it, you isn't no gentleman. If you doesn't like the fish smell and the quaintness of Gloucester. Marblehead is only

fish smell and the quaintness of Gloucester, Marblehead is only seven miles away and Boston only about eighteen.

Fourteenth Day: (Friday.) Plymouth, Massachusetts. Run

seven miles away and Boston only about eighteen.

Fourteenth Day: (Friday.) Plymouth, Massachusetts. Run across Massachusetts Bay. You CAN follow the shore, but by this time, it doesn't worry you to head out to sea. You finds an anchorage basin off Plymouth Rock, and like the Pilgrims, maybe you runs aground a couple of times in the mud. If you goes in for antiques, here's your chance.

Fifteenth Day: (Saturday.) Montauk or somewhere near home. This it is a long run and if you doesn't want to make Montauk Harbor and see what Carl Fisher has been doing for the yeeksmen why go wherever you damn pleases: I has lost

the yachtsmen, why go wherever you damn pleases; I has lost

interest in you by now. Sixteenth Day: (Sunday.) Back to the home anchorage. If by this time you and your cruising companions isn't in sounder health, sweeter in spirits and clearer in mind, then MoToR BoatinG, it is all wet and I doesn't know what is good for mens souls.

Editor's Note: Any yachtsman contemplating this cruise and who desires further information, may address "Huck" care of MoToR BoatinG.

Driving Boats Without Propellers

(Continued from page 32)

The effectiveness of the arrangement can be increased by distributing the inlet and outlet ducts over the entire outside surface of the craft, not only at the sides but also in the bottom. A further increase in efficiency is secured by providing a scale-like surface throughout the hull, which in effect resembles a layer of shingles. Each scale forms a very slight step under which the water is forced out.

The liquid or air which is thrown out of these many nozzles can be used to steer the craft by throttling or cutting off entirely some of the ducts on one side or another. This arrangement will be found particularly convenient in the case of airships as a vertical steering effect can be produced by strengthening the outflow from the bottom or top, and at the same time adjusting that on the opposite side. This can be readily arranged by suitable valves.

It is expected that this method of propulsion will be able to increase the speed of ships more than one hundred per cent. with the same expenditure of power as carried at present, or conversely to secure the same rate of speed with a saving in energy of from 70 to 80 per cent. Such high speeds are anticipated that the inventor sees no objection to driving ocean liners at the rates of speed common to railroad trains,

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vith rseof that ates A new and revolutionary principle in air whistle design

The ·

is made of cast bronze and may be had plain brass finish or nickel plated. Simple and inexpensive sircompressing equipment can be furnished for motor boats not already equipped. A size for every craft from an outboard motor boat to the Leviathan.

Prices from \$10.00 up. Used by hosts of private owners and by: Standard Oil Co., General Petroleum Co., Union Oil Co., Great Nor. Ry., So. Pac. Ry., and hundreds of others.

If not in dealer's stock order direct, specifying size and type of boat.

Write or wire for "Booklet A."

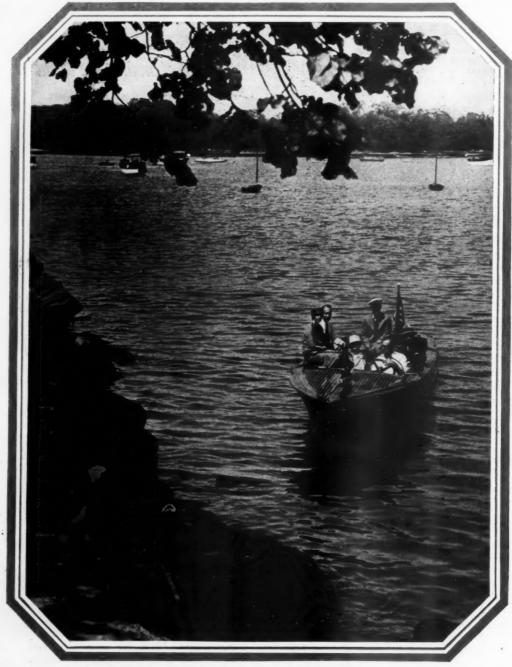
he Cunningham Whistle will startle the whole marine world!

THIS drastically different air whistle with its piercing but winning tone comes like a cry out of the future. Amazingly different in quality and penetrability, its distinctive voice carries farther than that of any other known sounding device.

Every ounce of pressure entering the Cunningham Whistle is converted into clear and convincing sound—unfailingly reaching far places through thickest fog—bringing back telling echoes.

Basically right in principle—wonderfully simple—foolproof and indestructible. Made for every size craft afloat. Dealers are selling the Cunningham Whistle instantly upon demonstration!





The open waterways are calling you to enjoy them with

The Dodge - Watercar

The country's most popular runabout. Designed by George F. Crouch, famous naval architect.

In the small cruiser class, the Richardson Cruisabout is also the most popular boat of its type.

Inspect these famous boats at our Marine Salon. Let us explain our special maintenance service.

WILBUR H. YOUNG & CO.

Distributors for Dodge Watercars and Richardson Cruisers in New York and several other eastern states.

MARINE SALON,

Telephone: Circle 2580

206 West 59th Street (Central Park South)

NEW YORK, N. Y.

Complete chain of organized boat service stations maintained for our patrons.

Advertising Index will be found on page 170

The Red Cross Chooses DODGE Watercars of Course!





AMONG all the standard high speed runabouts available, the Red Cross selected a Dodge Watercar for the desperate work of saving lives and carrying medical supplies to the flood stricken people of Mississippi and Louisiana. This boat, purchased by telegraph, and another Watercar, donated by the Dodge Boat Works, have done heroic work in bucking the terrific flood currents at high speed—in perfect safety—200 to 300 miles a day—an epic of honest construction, reliability and scientific design.

(Safe, seaworthy, fast no matter what the burden)

Such critical tests are nothing new for Dodge Watercars. They have gone out in Florida hurricanes to help ships in distress and have run through the surf in emergencies when experienced fishermen warned it was impossible for small boats to survive. The Dodge Watercar is a gem in appearance but a rugged bulldog in power, reliability and endurance. Ask any Watercar owner.



Built in four beautiful models—22½ to 30 feet, 7 to 14 passengers, 20 to 45 miles an hour, \$2195 to \$7200

The Dodge - Watercar

The Boat of a Thousand Uses



Write immediately for "The Book of the Dodge Watercar" full of boating lore—it will interest you mightily.

Rich territory available for high class representatives. Write us.

HORACE E. DODGE BOAT WORKS, INC. 562 LYCASTE AVE, DETROIT, MICH.

Dodge Watercars
THE GREATEST BUY
In the Motorboat World



ders, 3-1/4" bore; 3-3/4" stroke. 40 H.P. in Runabouts--33 H.P. in Cruisers. Length 50". Height above center line, 15-3/K Weight, 540 lbs. With electric starter and generator and with aluminum base and clutch housing. Price, \$595. With iron base, \$575. With magneto ignition, \$520.

New "Red Arrow" —for speed

Our Model "Six-40" but high speed, racing type with twelve spark plugs in high compression heads, twelve point distributor, starter, generator, aluminum base, aluminum manifolds, open flywheel with guard, no side panels between lag screw positions. Weighs only 492 pounds. Price, \$645.



Model H-50—A quality Four of extreme accessibility and flexibility. Weight, 900 lbs. Length, 50". Turns up 1800 R.P.M., 50 H.P. Price, \$695 to \$845, depending on equipment.

"Duplex-Magno"

Model H-50 with Duplex oil pumps and Duplex ignition—each set operated separ-ately and independently, providing double protection against the two common causes of power failure in any emergency.



model Z.— The shortest, lightest, cleanest, low-its power field—20 to 25 H.P. Bore, 3-5/8"; stroke, 4". Price, \$395 and up to \$466, Gray makes.

Gray makes Motors for all ma-rine requirements from 5 to 90 H.P. 11 models of Singles, Twos, Fours and Sixes



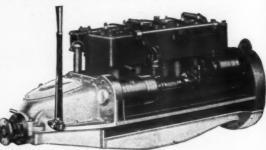
The Gray "Six-40" is meeting with enthusiastic acceptance. prominent attorney and yacht club member of Washington, D. C., says of this motor with which his Richardson Cruiseboat is powered: "You have one of the best motors I have seen. It is quiet and vibration is negligible."

Ask for sheaf of testimonials if you like to read them.

The Gray "Six-40" has all the good qualities of the ideal Motor. Powerful in response to the throttle, tuned for action, amazingly free from vibration, balanced in every part, accessible to the utmost degree, and priced low. It is an outstanding value in a Motor of the quality America's leading builders like to install.

With Aluminum Base and Clutch Housing

With Iron Base 8575



"Six-40" Gray

- -Shortest, lightest, lowest (above center of shaft), sturdiest "Six" in its power class.
- Big crankshaft, big bearings, big pistons.
- Lowest center of gravity.
 - -Pressure lubrication, yet no oil leaks anywhere. -Handy oil filler—big hand hole plates.
- -Accessible valve adjustments behind oil-tight plates.
 -Silent adjustable Morse timing chain.
- -Submerged oil pump.
- -Great flexibility of power-range 185 to 3000 R.P.M.

GRAY MARINE MOTOR CO.

6910 LaFayette Avenue Detroit, Michigan Bowler, Holmes & Hecker, 259 Greenwich Street, New York, N. Y. Gray Marine Motor Co. of Canada, Ltd., 77 Adelaide Street West, Toronto, Ontario, Canada

Three SIXES

40-60-90

H.P.

Four **FOURS**

25-35-50 & 75 H.P.

1906" — BUILT BY PIONEERS — ENGINEERS — LEADERS "GOOD SINCE

Advertising Index will be found on page 170



At the Massachusetts Gold Cup Regatta, held at Boston on June 18th, "Hot Dog," driven by H. Ross Mattock, won the Class "B" Amateur Outboard Race.

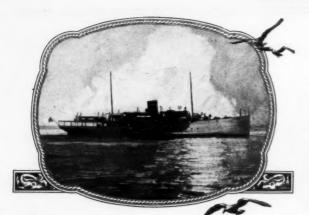
The Johnson Standard motor, which drove the "Hot Dog" to victory, was equipped with MotoMeter Self Adjusting Spark Plugs.

At last there is an ideal Spark Plug for outboard and inboard marine engines, as well as all types of automobile engines—the MotoMeter Self Adjusting Spark Plug.

The MotoMeter Spark Plug is the realization of a principle long appreciated in the ignition field—a spark plug with a self adjusting spark gap, which is set cold at 15 thousandths of an inch. As soon as the engine is started and heat generated in the cylinders, the gap opens to 30 thousandths, thus doubling the length of the spark. When the ignition is turned off and the motor cools, the gap adjusts itself to the original short opening.

"Your engine deserves them."

The MotoMeter Company, Inc., Long Island City, N.Y. The MotoMeter Co. of Canada, Ltd., Hamilton, Ont.



A Magnificent Yacht

HE M. Y. VIDOR, built by the Tebo Yacht Basin yard from designs by Henry J. Gielow, Inc., New York, for Mr. Victor Emanuel, in the string of the VIDOR is the string of the VIDOR in the string of the VIDOR is the string of the VIDOR. New York, is an outstanding exnple of the work of this Organi-

No more palatial craft has been In once patients of the tree of tree of the tree of th

is absolutely vibrationless.

Other unusual features are the heating, ventilating, cooling and refrigeration systems designed and perfected for comfortable, leisurely cruising in all waters, under all climatic conditions.

Altogether, the VIDOR becomes the latest addition to America's most sumptuous and beautiful pleasure craft.



TODD DRY DOCK ENGINEERING & REPAIR CORPORATION





ALWAYS READY FOR SPORT



Fishing, swimming, touring—take your Darrow with you and you have a private boat on every lake. These sturdy steel boats are easy to carry, easy to assemble, and are built to last a lifetime. Darrows come in one, two and three sections. You'll want to see them. Ask your dealer or write us for the Darrow Boat Book.

DARROW STEEL BOAT CO.

817 CLINTON ST.

ALBION, MICHIGAN

Yard and Shop

(Continued from page 54)

Hudson River Boat Yard

Behind an exterior bristling with barges, spars and assorted lumber, the North River Boat Works, of Edgewater, N. J., is turning out new and repair motor boat work which compares favorably with that of more pretentious yards in the metropolitan district. Gus Rietzke, the owner of the yard, has worked hard since he took it over ten years ago, and yard, has worked hard since he took it over ten years ago, and has built up a valuable property which is equipped to haul and repair motor craft up to 80 feet in length. A new 38-foot double cabin cruiser, which is about ready to take the water, was designed by Rietzke, and is notable for a number of reasons. Her keel as well as her clamps are full-length pieces of oak. She has headroom which permits her owner, who measures six feet six, to stand upright, and yet she draws less than three feet and is not disproportionately high for her length. With a Sterling Petrel she is expected to do 16 m.p.h. A previous cruiser from the same yard is Pokealong, of New Rochelle, which has attracted favorable attention on the Sound. The North River Boat Works is conveniently situated farthest north on the Jersey side of the Hudson, half a mile above the Edgewater ferry. It has good anchorage, landing float and docking facilities. docking facilities.

New England Distributor for Boats

The Noyes Marine Sales Company of Boston with Show and Sales rooms at 857 Commonwealth Avenue has been organized to handle a complete line of boats. H. K. Noyes is President, H. E. Noyes, Treasurer, and Burton A. Clark, Director of Sales. Both H. K. and H. E. Noyes are well known yachtsmen, the latter having a 56-foot express cruiser under construction at the present time at the yard of F. D. Lawley, Inc., at Quincey, Massachusetts, and powered with a pair of 200 h.p. Hall Scott engines.

At the present time the company is showing a 40 mile Chris-Craft, also one 25 mile and one 35 mile Chris-Craft Cadet, also a Richardson Cruiseabout. They are selling and distributing these popular boats throughout New England.

They report six new Chris-Craft already sold for delivery to Lake Sunapee this season, three for Lake Winnapesaukee, one for Moosehead Lake, two to Rangeley Lakes, four to Bar Harbor and vicinity, two to Portland, and five along the Massachusetts and Rhode Island coast. The officers of this company, apparently intend making Chris-Craft as conspicuous at all watering places In their territory as they have made Buick cars on the roads. It is also planned to have the F. D. Lawley, Inc., put out a line of stock cruisers above 30 feet which they will sell.

Marine Hydraulic Remote Controls

A complete line of Hydraulic bridge deck or pilot house controls for boats of all types and sizes has been announced by the Marine Controls, Inc. of Rochester, N. Y.

This line consists of the Maricon Hydraulic Steering Gear

the Maricon Hydraulic Reverse Gear Control of both light and heavy duty type and the Maricon Hydraulic spark and throttle control.

While the principle of hydraulics is employed successfully in nearly every other branch of industry, its adaptation to Marine Remote Controls is entirely new and follows very naturally in the wake of its use in automobile brakes where it has been received most enthusiastically by engineers users alike.

It is claimed by the engineers of the Marine Controls, Inc. company that the simplicity of construction and installation of this line of controls affords to the boat owner of stallation of this line of controls allows to the boat owner of today, at a very nominal cost, an absolutely reliable and dependable remote control system by which the pilot has at his very finger tips complete and visible control of the whole operation of his boat with the least possible expenditure of effort. Due to the simplicity of these controls their installation in any type of boat, including auxiliary sail boats, effectively eliminates the usual complications incident to the installation of mechanical controls and reduces this undertaking to a simple and economical process.

The Maricon Hydraulic remote controls is now on the market and immediate shipments are being made. Literature will be gladly forwarded upon request by the Marine Control, Inc., Rochester, N. Y.

(Continued on page 122)

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NEW ENGLAND PRODUCTS

FIRST ANNUAL REGATTA

MASSACHUSETTS

GOLD CUP ASSOCIATION, Inc.

DORCHESTER BAY BOSTON, MASS.

IUNE 17-18, 1927





Now manufactured and sold to the marine trade by Old Man Joe exclusively. Quick shipments from complete stock at all times. Send for folder on the line.

JOINT



PEIRCE & KILBURN, Inc.

NEW BEDFORD, MASS.

H AUL here at any time on any day for any service. No delay, as each vessel has her individual cradle and track radiating from a turntable of 75 tons capacity, also a 240-ton Crandall Railway, 13 ft. of water, launching into a clean basin from a clean yard by competent men.

Use our yard and keep your racing and vacation appointments.

When writing to advertisers please mention MoToR Boating, the National Magazine of Motor Boating, 119 West 40th Street, New York



NEW ENGLAND MADE IN





SAVES ITS FIRST COST MANY TIMES OVER. THE MOST POWERFUL PREVENTIVE OF MARINE GROWTH, BARNACLES AND BORERS. IT HAS NO EQUAL IN TROPICAL AND SEMI-TROPICAL WATERS.

TWO HANDSOME AND LUMINOUS COLORS
EMERALD AND LIGHT GREEN, ALL DOUBLE STRENGTH
Highly recommended and used by J. Murray Watts, Charles
D. Mower, John G. Alden, Henry J. Gielow, George Lowley &
Son Corp., Herreshoff Míg. Co., The Matthews Boat Co., The
Eleo Works, The Sea Sled Co., Ltd., Luder's Marine Construction Co., and many other leading naval architects and by the
most reliable dealers and builders.

STEARNS-McKAY MFG. CO., Marblehead, Mass., U. S. A.



18-FOOT MAHOGANY RUNABOUT \$ 1075 F. O. B. Boothbay, Me.

Immediate Delivery Assured
Built by Rice Brothers Corporation
Crowninshield, Burbank & Howard Distributors: Crow



Boats for Outboard Motor

These boats are built in the old-fashioned strong, sturdy, Cape Cod style and will last a lifetime with good care. Seaworthy and very steady. Also row boats, sail boats and motor boats.

Cape Cod Ship Building Corporation 18 Trement St., Dept. M, Boston, Mass.
Works at Wareham, Mass.

A Better Search Light In Every Way



Following are results of recent tests at Corning, N. Y., Laboratories:

Size Light Tested	Test Voltage	Projection in Beam C. P		
7"	12 v.	340,000		
10"	12 v.	450,000		
1.4"	32 w	710,000		

THAT'S WHY!

Made in 3 sizes and equipped for following voltages: 6, 12, 24, 32, and 110 V. Finished in Polished Brass, Battleship Gray, Nickel-Plated, Crodon-Plated, and Black Nickel.

We also manufacture a complete line of running lights and cabin fixtures.

Let us know your requirements.

THE NATIONAL MARINE LAMP CO. FORESTVILLE, CONN.

ELDREDGE-McINNIS, Inc.

160 STATE STREET, BOSTON, MASS.

Naval Architects—Yacht Brokers

(Formerly General Managers and Naval Architects for George Lawley & Son Corp., Neponset, Mass.)



KYRRAH—56' x 12' 4" x 2' 10" Express Cruiser designed by Eldredge-McInnis, Inc., for H. E. Noyes of Noyes Buick Co., Boston, Mass., and powered by two 200 H.P. Hall-Scott engines. Built by F. D. Lawley, Inc.

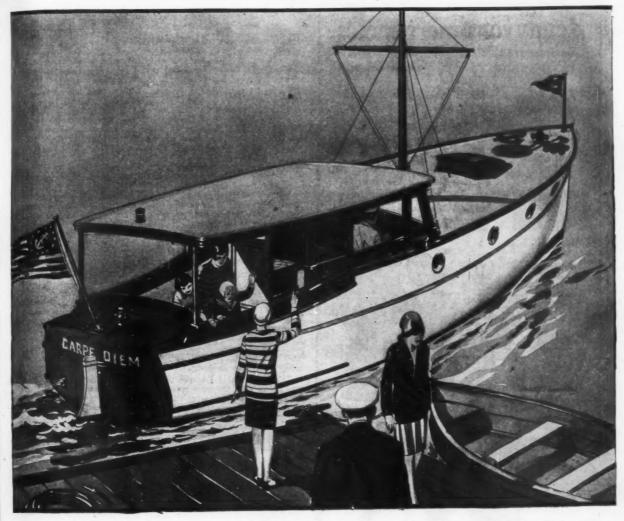
Designers and engineers for the A-C-F 25 ft. runabout, 35 ft., 41 ft., and 62 ft. cruisers, and also designers of the "Wanamaker 38" besides many large power and sail yachts.





MADE IN NEW ENGLAND





The GRAY Thirty-six

The special Gray thirty-six Footer has been designed to fill the requirements of the yachtsman who enjoys comfortable Day Cruising and at the same time requires the usual accommodations of the Cruising boat-fully equipped galley, toilet and sleeping accommodations for three or four people. Comfortable Day Cruising has been emphasized in this craft. Note the high built-in seats in the for'd cockpit for unobstructed shelter cabin which affords protection from flying spray in rough water. The arrangement of all Gray Boats may be varied to meet the special requirements of the individual. Powered with a Scripps G-6. Write for details and price.

THE lure of the water finds its most satisfying answer in the finest boat you can buy at the price you want to pay. Such a boat is the best investment in health and pleasure that you can make. The Gray is that kind of a boat. Gray owners say so.

Mr. Walter C. Grey of Boca Grande, Florida, says: "Every one that saw my O SIN SAN pronounced it the best built boat they had ever seen." Mr. J. Barkley Eakins of Brooklyn, N. Y., says: "I still own my Gray Cruiser and have found it to be a good boat in every respect." Mr. F. J. Kidder of Lincoln, Mass., writes: "The 28 footer you sold me has been a decided success. I shall continue to be her owner until I buy one of your 36 footers." And so it goes. Gray Boats sell best to the friends of Gray owners—in other words they sell themselves.

Gray Boats

THOMASTON, MAINE

WESTERN REPRESENTATIVE

CARL R. GRAY, Jr., Central Manufacturing District Bank, 1112 West 35th St., Chicago, Ill.



NEW ENGLAND



Ready for Emergencies

Be Prepared-Escape Alive and Well



You can't sink if you are equipped with



Life Saving Garments, Cushions or Belts

Send for complete Free Catalog, showing complete line of life sav-ing equipment, Gov't. approved.



Style No. 8

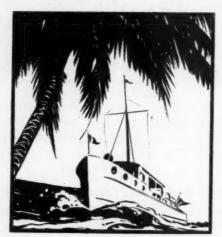
Style No. 7-C (also made witho collar)

Kapo Coast Guard Vest Style No. 7-C, With Collar

pproved by U. S. Steamboat ispector, Department of Com-erce. Made of strong O. D. oth. Will hold up the heaviest erace. Quickly put on. Easily ijustable. For sale by leading set autitters, sporting goods.

KAPO PRODUCTS CO. 76-88 Traverse St.

Boston, Mass



August Delivery

40-FT. TWO-CABIN CRUISERS; Sterling Petrel engine; Teak deckwork; stout construc-16 miles per hour. Boats detion; speed, livered complete, ready for owners.

Fall deliveries of our Houseboats, 53-ft. Crnisers, etc., for southern waters.

If your requirements vary, let us cooperate you or your architect. Write for

STAPLES, JOHNSON & CO. Yard on Saco River Biddeford, Maine

WHERE BOAT BUILDING IS A FAMILY TRADITION

The Pilgrims Has Landed

(Continued from page 14)

and a gasoline boat for fuel. I freely hands the brown derby to Commodore James R. Hodder, Roy Pigeon and all the men who worked under them for the excellent manner in which this Regatta was planned and executed. No "first" regatta anywhere was ever run so well.

But as I was saying, it was one of them June days when you froze to death if you gets out of the sun and into the wind, and there was Art Utz standing up on the bridge, waving a flag, without no coat on at all and giving a first class imitation of a Tyrolean Mountaineer. The only place what was warm, was aboard the Imp when she takes fire. Just as they pulls away from the Committee Boat, she back-fires and a burst of flame, it spouts out of her engine hatches. Here I sees two exexamples of snortsmanship. First they was a ship, new rune. flame, it spouts out of her engine hatches. Here I sees two exexamples of sportsmanship. First they was a shiny new runabout lying within a dozen feet of her with a Pyrene right in front of the driver. They yells to this driver to throw it aboard. The driver, he is too proud of the nickel plate and refuses to remove it from the bracket. I hopes that his boat burns to the waters edge some day. The second example was the nervy sport in the Imp. I wish I knew his name. He never budged from where he stood, with the flames roaring right up in his face. A Coast Guard-boat it runs up; they throws him a extinguisher, he sticks right to the job, puts the fire out in about ten seconds and then starts up his engine as if nothing had happened. had happened.

On this day, I watches some of the races. The outboards were the most fun. They was millions of them, all in charge of Frank Wigglesworth of the Race Committee and he kept them all happy. They is nothing more remarkable in my mind than the development of the outboard motor and boat. Two years ago, a outboard what would make ten miles was a wonder. Today, twenty miles, it is slow and many of them shoots over the water like a skipping stone at around thirty. In another year, they will be fitting them with wings, will bounce off in the first good wave and keep right on going to Parus.

The 151 Class, if I knows what I means, makes the most noise and pretty near the most speed. They has motors about the size of a sewing machine what turns five thousand revolutions. They was a new one out there called Miss Massachusetts but I thinks the reason she didn't win more races was because they was running her wrong side up. She looks to me as if she would go faster if they turns her over, but I may be wrong.

Probably the most important thing what happens at this Regatta is that I has positively determined that my reading public gatta is that I has positively determined that my reading public consists of at least two persons. In fact Chap, they admits it and they is no others than Bill Willis of the well known yacht hardware firm of E. J. Willis Company, and Leon Tripp of the Albany Boat Works. Upon determining this here fact, I the Albany Boat Works. Upon determining this here fact, I immediately calls on Rossey to take a picture to prove it, but in some manner Round Bottom Hand got backed up in it. I was so surprised that I spends a couple of hours telling Leon how he ought to build boats and telling Bill all about yacht hardware, after which I feels so exhausted that I decides to go back to Florida. And the only other thing what happens is that I hurries so fast to catch the New York steamer, that I couldn't wait for the club launch to reach the float. I leaps, gets my suitcase and part of my body ashore, but loses my legs overboard, and although I recovers them, they was very damp, so I am sitting in my stateroom wound up in a blanket aboard the SS New York and the beautiful things out aft, they cannot dance with paparatically and the statement of the statemen tonight.

A complete summary of the results of the Boston Regatta will be found on page 116. A complete story of the races will appear in next month's MoToR BoatinG.

Dodge Organized in Texas

R. C. Trowbridge, a prominent business man of Galveston, Texas, impressed with the fine appearance and strong construction of the standard models of Dodge Watercars and having had considerable experience with the Curtis engine, recently decided to organize a Texas Company for the distribution for these increasingly popular runabouts. Forthwith a strong organization has been formed, with J. R. Sealy, of the banking house of Hutchins and Sealy, of Galveston, as president, Mr. Trowbridge, vice-oresident and general manager, and several other important Galveston men included in the corporation, including Maco Stewart, a prominent lawyer, and T. R. Hancock, Shipping Board agent and president of several steamship companies. Elaborate offices have been established at 621 Twenty-third Street, Galveston, where the Watercars are on display. Demonstra-R. C. Trowbridge, a prominent business man of Galveston, Galveston, where the Watercars are on display. Demonstra-tions are being made daily, including frequent runs from Galveston to points as far distant as Corpus Christi, Beaumont and Brownsville.



MADE IN NEW ENGLAND



MORE

SPEED

MORE

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LESS

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LESS

FRICTION

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Oilzum—the cream of specially selected, 100% pure paraffin base oils—will give you the acme of lubrication at a minimum cost.



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111

LAWLEY



THE world-renowned LAWLEY custom-craftsmanship is now available in these two standardized cruisers at the economy of a production price.

SIXTY-EIGHT FOOT Twin-Screw Express Cruiser

FOR sixty years Lawley custom-built craft have been pre-eminent in distinction, luxury and individuality. Now you can get these same qualities in Lawley standardized cruisers and at a surprisingly low cost.

The Lawley 68-foot Twin-Screw Cruiser is in a class by itself for performance, comfort, completeness and elegance. It has the exclusiveness that makes ownership an unending source of pride for the yachtsman who wants something out of the ordinary. You will admire its graceful lines, appreciate its superb craftsmanship, mechanical excellence and brilliant performance. Let us tell you in detail about the many superior features of this boat and also about its low price.

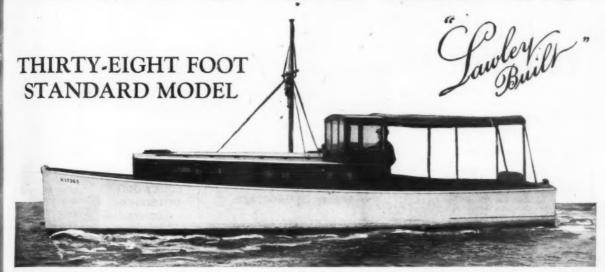
SPECIFICATIONS Length, 68 ft. Beam, 12 ft. 6 in. Draft, 3 ft. 8 in. Power Plant, two 225 H.P. Sterling engines. Speed, 23 miles per hour. Delivered ready for service with following equipment: Unimote 2 k.w. generating set, anchors, chain, lines, fenders, government equipment, dinghy, 12-ft. launch, oars, davits, blocks, covers, awnings, etc.



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CRUISERS



Unduplicated Lawley Value

THIS smartly designed 38-foot cruiser is by far the greatest value ever offered in a Lawley craft. If you are at all acquainted with Lawley quality you know there is none better. And when you learn how little it costs to own this fine cruiser, the urge to buy will be irresistible. Your own judgment and knowledge of boats will convince you that the Lawley 38-footer gives value beyond duplication in the standardized boat market.

The Lawley 38-Foot Standard Cruiser is the ideal small cruiser for speed and comfort. Four real berths, toilet, galley, engine room and commodious cockpit, all in 38 feet. Power is furnished by the reliable model E-6 Scripps, 100 H.P. marine engine.

Descriptive literature sent upon reauest.

IMMEDIATE DELIVERY ORDER NOW!

By placing your order now you can get your Lawley 38-Foot Cruiser right away, fully equipped and ready for use. Don't delay, as there are only a few more of these boats available for this season.

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Neponset, Massachusetts





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20 BROOKLINE AVENUE-BOSTON, MASS.

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DART RUNABOUTS

In addition to the 26 ft. Dart Runabout illustrated there is the speedy Dart Junior, a 22½ foot boat of equally fine construction. Both of these runabouts are proclaimed outstanding examples of supreme artistry, quality and craftsmanship.



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MARINE ENGINE OIL
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The Lockwood has never been a one feature motor—but has kept "a year ahead" with ability to demonstrate its superiority at every point. Get a LOCK-WOOD now!



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NEW HAVEN MARINE CONSTRUCTION CO.

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Now building standardized cruisers, 30' x 9'3" x 2' 5", on a large production basis on which we will be pleased to honor your request for further particulars.

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Marine railways with from 60 to 500 ton capacity.

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Another model recently added to our building program is a staunchly constructed family boat with outboard motor power.





Just what you need for a Swim

ERE is the neatest, most convenient swim accessory that ever filled a long-felt need. Many a time you and your guests have had to forego the pleasure of a refershing swim because of the bumps and bruises that result from the struggle to get back on deck. Now you can break out the Wilcox Swimming Ladder and you're all set to go. No more barked shins or discomforts-climb aboard easily and safely.

Hook it on anywhere-may be used at docks or floats. rubber covered eyes prevent marring of paint or varnish. A pipe put down through the eyes will make the ladder rigid if desired.

Stock length five feet, containing four rungs. Sturdy, strong, stows away in a corner of the locker. Chain and rungs heavily galvanized. Make sure you get yours by ordering now.

Any hardware dealer can supply you with the ladder, or write us for address of the Wilcox dealer.

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Swimming Ladder



Autochime Whistle Fig. 5381. Polished brass. Powerful, sweet - 4 oned whistle tuned to harmonic scale. Patented cup gives far reaching signal.



Burned Gas Compressor Model O-C., for charging whistle tanks. Polished brass. Pat. 3-way valve



Wilcox Compass
Dial floats in clear, colorless liquid. Expertly
made. Dependable, accurate and weather resisting. Mahogany boxed,
Fig. 855. Five sizes.



Joint strongly made by riveting eye through rung. Chain link securely held by eye. Rubber covering on eye prevents marring the paint or varnish. Extra rungs easily added.

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A book every boat owner should have. 294 pages of helpful facts. Covers steering gear, ground tackle for mooring or cruising, correct use of fags, how to box the compass, knots, splices, etc. Illustrates, describes uses of Wilcox line. Sent only on receipt of 50 cents.

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Complete Summary of Results-Massachusetts Gold Cup Regatta

BOSTON, JUNE 17-18, 1927

Clas	s B Outboard Am	ateur. 2	Heats of	3 Miles	Each		Free-for-All for Massachusetts Gold Cup, 3 Heats of 12 Miles Ea
Boat	Owner	Time	Speed	Time	Speed P		Boat Owner Time Speed Time Speed Time Speed Ist 1st 2nd 2nd 3rd 3rd s
a.	001	1st heat	t 1st heat	2d heat	2d heat		heat heat heat heat heat w
Gloucester	C. S. Jopp H. R. Mattocks	. 10:35	17.01	44 54	15.00	4	Imp
Hot Dog	k. L. K. Davis	11:10	16.87	11:51	15.20	5	Lady Spitfire I. H. Rand, Ir. 16:54 42:59 16:10 44:52 17:19 41:56
Penn Vann	W. E. Moreton	11:10	16.12 15.94	-	-	6	Rainbow IVS. B. Dunstord 17:19 41.54 19:22 37.16 17:28 41.24
June Bug	F. C. Bowditch	. 11:47	15.28			8	Miss Hopatcong J. J. Dunne 17:31 41.07 15:58 45.11 15:29 46.48
Wahoo	F. C. Bowditch	. 13:48	13.05	-		10	101 Tark Malantan (N. Cambana) 2 Mate of C Miles Fack
Miss Hartford	C. A. Apsahl	. 13:49	13.04	11:12	16.08	2	Boat Owner Time Speed Time Speed Time Speed I
Manhattan							1st 1st 2nd 2nd 3rd 3rd s
Kid (1)	d. F. Wigglesworth	. 13:50	13.01	10.21	17.20	11	heat heat heat heat heat heat w
Miss Lockwoo	d. F. Wigglesworti	1	-	10:21 12:39	17.39 14.22	7	Esmeral IIIA. D. MacLeod 11:07 32:37 9:37 37.46 10:16 35.09
Smiling Dan .	J. Smith			13.46	13.08	9	Se Me Go H. Backus 11:26 31.48 11:03 32.59 11:26 31.48
(1) Protester	F. Wigglesworth			10.40	45,06	,	Baby Peerless .C. Ripp 12:08 29.66 D.N.S. — 10:27 34.40
							Miss West- chester mond 12:14 29.40 10:10 35.41 9:59 36.08
	C Outboard Am						
Boat	Owner	Time	Speed	Time	Speed P		151 Inch Hydroplanes Free-for-All, 3 Heats of 6 Miles Each
	10 11 11	1st hear	1st heat	2d heat	2d heat		Boat Owner Time Speed Time Speed F
Black Diamon	d.C. H. Fay	7:00	25.71	11:40	15.42	1	1st 1st 2nd 2nd 3rd 3rd s'
Green Diamone	dC. H. Fay	7:06	25.35 25.31	9:55	18.16	2	Spitfire VJ. H. Rand, Jr. 9:43 37.04 8:44 41.24 13:21 26:96
White Diamone	Brewer	9:01	22.47			4	Miss West-
Good Night	Evinrude Motor	0:01	46.98			4	chester E.W. Hammond 9:51 36.57 9:48 36.78 10:14 35.15
GOOD TARRET .	Co	9:07	19.76		-	5	Miss Macsa-
Miss Haverhil	Co. IHaverhill John-						chusettsL. T. Savage 11:03 32.57 9:37 37.42 11:47 30.54
			19.65		deciman	6	Baby PeerlessC. Ripp 11:45 30.62 D.N.S. — 11:25 31.55
Miss Pawtucke	t. Evinrude Motor	7	177 514			7	Chusetts L. T. Savage 11:03 32.57 9:37 37.42 11:47 30.54 Baby Peerless C. Ripp 11:45 30.62 D.N.S. — 11:25 31.55 Little Spltfire J. H. Rand, Jr. — 16:47 21.44 16:47 21.44 Spitfire VI H. Rand, Jr. — 12:40 28.42 12:40 28.42
Dubban Daba	A. G. Moranville	10:16	17.54 17.27	-	-	8	Spitfire VI H. Rand, Jr 12:40 28.42 12:40 28.42 :
Rubbei Daby.	A. G. Moranvine	10.20	17-61			0	26 Foot Stock Runabouts, 150 Horse Power, 2 Heats of 6 Miles Ea
	Class B O		F 6	A 19			Boat Owner Time Speed Time Speed Positi
							1st heat 1st heat 2d heat 2d heat W
			liles Each				Chris Craft Noyes Marine
Boat	Owner	Time	Speed	Time	Speed P		Sales Co 11:07 32.40 10:30 34.28 11:05 31.99
1) Blue Bird	R. H. Blue	ist near	1st heat	2d heat	2d heat		Chris Craft Noyes Marine 11:51 30.37 11:09 32.28
Cute Craft	H. Diuc	8:23	21.38	8:19	21.62	1	Sales Co
	A. T. Buffington.	8:31	21.12	8:27	21.30	2	Hacker Dolphin, W. H. Moreton 11:40 30.83 Water Car B. Lombard 12:25 29.98
Baby Whale V	A. J. Pierce	8:50	20.37	-	-	7	Water Car B. Lombard
11 36 L- 44							Baby Gar, Jr — 12:25 29.98
Kid	C. Cooper I. G. Lunt W. E. Moreton. F. Wigglesworth	9:05	19.81	9:31	18.91	4	
(1) Miss Milton.	l. G. Lunt	9:36	18.75	9:08	19.723	3	26 Foot Runabouts, 118 Horse Power, 2 Heats of 6 Miles Each
Penn Yan	P. Wigglesmorth	9:30	18.11	10:08	17.75	10	Boat Owner Time Speed Time Speed Positi
Smiling Don	D Smith	10:23	17.27 17.19	10:05	17.73	5	Harriet D W. L. Durland 12:54 27.92 12:58 27.78
Don F	E E Stracker	10:20	17.16	20.03	11.04	12	Moby DickP. S. Rand 14:05 25.54 D.N.S
Miss Lockwoo	D. Smith E. E. Stracker d.F. Wigglesworth	10:33	17.05	10:22	17.38	9	Grace Derby
Fire Cracker	D. Yule	10:42	16.81	11:27	15.72	14	Franklin Auto
Doane	.D. Yule I. R. Aron	12:02	14.96	-	-	16	Co.
Hot Dog	H. R. Mattocks	14:03	12.81	9:37	18.711	8	Plymouth — 13:41 26.30 5
Flying Flapjack	.H. R. Mattocks c.L. K. Davis C. A. Apsahl	-	•	10:17	17.49	11	Dodge Water
Miss Hartford.	C. A. Apsahl			10:32	17.07	13	CarB. Lombard 11:22 31.68
(1) Protested	Hildreth		-	11:38	15.47	15	22 Foot Runabouts, 110 Horse Power, 2 Heats of 6 Miles Each
(I) Protested	l.						Boat Owner Time Speed Time Speed Positi
							1st heat 1st heat 2d heat W
	Class C O			All			Chris Craft Noyes Marine
	2 Heats	of 3 M	iles Each				Cadet Sales Co 12:11 29.54 Not Timed 1. Miss DolphinW. H. Moreton 12:31 28.77 D.N.S.
Boat	Owner	Time	Speed	Time	Speed P	osition	Miss DolphinW. H. Moreton 12:31 28.77 D.N.S
			1st heat	2d heat	2d heat	Won	Dodge Water
			25.36		-	5	CarDr. B. Lombard D.N.F 11:20 31.89
Black Diamon	d.C. H. Fay	7:06			04.01	2	Onset Class, 3 Heats of 6 Miles Each
Black Diamon White Diamon	d.C. H. Fay	7:06 7:09	25.14	7:15	24.81		Other Case, a freete of a wines gach
White Diamond Green Diamond	d.C. H. Fay d.C. H. Fay L.C. H. Fay	7:06 7:09 7:28		7:15 ° 7:04	25.43	1	Boat Owner Time Speed Time Speed Time Speed I
White Diamond Green Diamond	d.C. H. Fay L.C. H. Fay	7:09 7:28	25.14 24.12	7:04	25.43	1	Boat Owner Time Speed Time Speed Time Speed P
White Diamon Green Diamond Cute Craft	A. T. Buffington	7:09 7:28	25.14 24.12 23.92	7:04 7:26	25.43 24.23	1 4	1st 1st 2nd 2nd 3rd 3rd s' heat heat heat heat heat heat wat we
White Diamon Green Diamond Cute Craft	A. T. Buffington	7:09 7:28	25.14 24.12 23.92 23.86	7:04	25.43	4 3	1st 1st 2nd 2nd 3rd 3rd s' heat heat heat heat heat heat with heat with heat heat heat heat heat heat heat he
White Diamon Green Diamond Cute Craft Herself (1) Blue Bird Penn Yan	A. T. Buffington. R. H. Blue W. E. Moreton.	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86 20:38	7:04 7:26	25.43 24.23	1 4 3 8	Ist 2nd 2nd 3rd 3rd s'
White Diamon Green Diamond Cute Craft Herself (1) Blue Bird Penn Yan	A. T. Buffington. R. H. Blue W. E. Moreton.	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86	7:04 7:26	25.43 24.23 . 25.27	4 3	1st 1st 2nd 2nd 3rd 3rd s' heat heat heat heat heat heat with heat with heat heat heat heat heat heat heat he
White Diamon Green Diamond Cute Craft Herself 1) Blue Bird Penn Yan Baby Whale II Miss Pawtucke	A.C. H. Fay A. T. Buffington. R. H. Blue W. E. Moreton. L. Kelly t. Eviarude Motor	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86 20:38	7:04 7:26 7:07	25.43 24.23 .25.27	1 4 3 8 10	1st 2nd 2nd 3rd 3rd s'
White Diamond Green Diamond Cute Craft Herself 1) Blue Bird Penn Yan Baby Whale II Miss Pawtucke	d.C. H. Fay A. T. Buffington. R. H. Blue W. E. Moreton. L. Kelly Eviarude Motor Company H. R. Mattocks	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86 20:38 19.77	7:04 7:26	25.43 24.23 . 25.27	1 4 3 8 10	1st 1st 2nd 2nd 3rd 3rd 3rd 5rd 5rd 5rd 5rd 5rd 5rd 5rd 5rd 5rd 5
White Diamon Green Diamond Cute Craft Herself 1) Blue Bird Penn Yan Baby Whale II Miss Pawtucke	A. C. H. Fay A. T. Buffington. R. H. Blue W. E. Moreton. L. Kelly t. Eviarude Motor Company H. R. Mattocks A. G. Moran.	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86 20:38 19.77	7:04 7:26 7:07 	25.43 24.23 25.27 ————————————————————————————————————	1 4 3 8 10 12 6	1st 1st 2nd 2nd 3rd 3rd 5rd 5rd
White Diamon Green Diamond Cute Craft Herself 1) Blue Bird Penn Yan Baby Whale II Miss Pawtucke	A. C. H. Fay A. T. Buffington. R. H. Blue W. E. Moreton. L. Kelly t. Eviarude Motor Company H. R. Mattocks A. G. Moran.	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86 20:38 19.77	7:04 7:26 7:07 	25.43 24.23 25.27 22.75 21.64	1 4 3 8 10 12 6	1st 1st 2nd 2nd 3rd 3rd 3rd st heat heat heat heat heat heat heat hea
White Diamond Gute Craft Herself 1) Blue Bird Penn Yan Baby Whale II Miss Pawtucke Hot Dog Rubher Baby Baby Whale V	A. T. Buffington, R. H. Blue W. E. Moreton. L. Kelly t. Eviarude Motor Company H. R. Mattocks A. G. Moran- ville A. J. Pierce	7:09 7:28 7:32 7:33 8:50 9:06	25.14 24.12 23.92 23.86 20:38 19.77	7:04 7:26 7:07 	25.43 24.23 25.27 ————————————————————————————————————	1 4 3 8 10 12 6	1st 1st 2nd 2nd 3rd 3rd 3rd 5rd 5rd
White Diamond Green Diamond Cute Craft Herself 1) Blue Bird Penn Yan Baby Whale II Miss Pawtucke Hot Dog Rubber Baby Baby Whale V Baby Whale C	d.C. H. Fay C. H. Fay A. T. Buffington, R. H. Blue W. E. Moreton, L. Kelly Company H. R. Mattocks A. G. Moran- ville Noyes Marine Sales Company Sales Company	7:09 7:28 7:32 7:33 8:50 9:06 9:34	25.14 24.12 23.92 23.86 20:38 19.77	7:04 7:26 7:07 	25.43 24.23 25.27 22.75 21.64	1 4 3 8 10 12 6	1st 1st 2nd 2nd 3rd 3rd 3rd 5rd 5rd
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Dodge Watercar Off on Long Trip

One of the most interesting sales of American motorboats was completed recently with the shipping of a Model-822 Dodge Watercar to M. R. Hastings of Fort Sweetenham, Singapore. Mr. Hastings is Vice-President and Far Eastern representative of the Federal Rubber Stamp Company which started years ago in a small way making rubber stamps and has since expanded into an import element in the industry,

has since expanded into an import element in the industry, manufacturing various kinds of rubber goods.

Through the co-operation of the New York Central Railroad, this boat made a record trip from Detroit to New York. It left Detroit by express on Saturday afternoon and arrived in New York the following Monday night in time to be placed on the steamer sailing for Singapore on Tuesday.

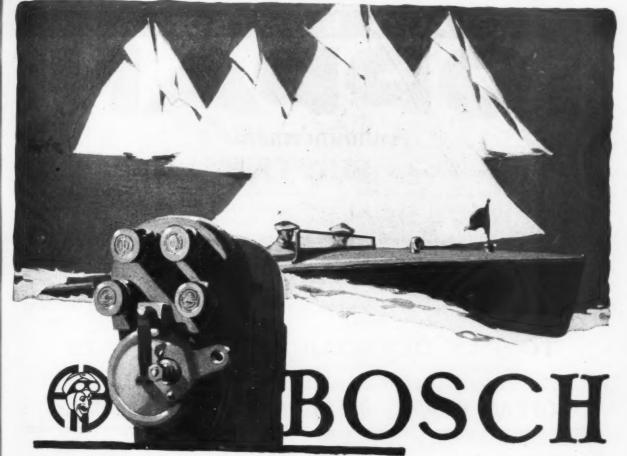
Motor Boat Ferries

Motor Boat Ferries

The region of Alexandria Bay on the St. Lawrence is a popular tourist center, and one of the chief sightseeing trips is a motor boat trip of thirty miles between the several ports. These trips all include a stop on the Canadian side for refreshment. One of the popular boats in this service is the 38 foot runabout, Miss St. Lawrence, which is one of two similar boats, equipped with the Gray Imperial Six, 90 h.p. engine, which turns a 19 by 14 inch propeller at 1,550 revolutions. The boats make three round trips per day for the entire summer season. Captain L. Wilson, owner of Miss St. Lawrence reports that he has not missed a single trip, and due to the smoothness of the operation of his engine, his sightseeing business has been greatly increased by the recommendations of his passengers. The boat can carry 32 persons without crowding.

70





You'll find Bosch Everywhere

Back of the busy scurrying of the "committee boat"--back of the speedster's power--back of the graceful movement of larger craft is dependable, Bosch Marine Equipment. Bosch Magnetos and Bosch Equipment are standard wherever veteran boatmen hold sway, off the coast or on inland lakes and rivers. True performance is a tradition with the American Bosch Magneto Corporation--every product is built to stand the severe test--to meet the emergency--to serve continually.

It always pays to specify Bosch Marine Equipment when releasing building specifications or when overhauling. We will gladly advise you on any detail of Bosch Electrical Equipment. Write us at once.

BOSCH HORNS

ELECTRIC

Bosch Electrical Horns have a low.

Bosch Electrical penetrating tone that travels far over the water and promotes safety and confidence.



BOSCH RED SPARK

PLUGS

Bosch RED Spark
Plugs Famous for
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Announcement

Double Cockpit SEA DOG Runabout

You may now obtain the new 26-foot Sea Dog, equipped with toilet and berths and powered by STERLING, at a popular price, and the famous 22-foot rough water, double cockpit Sea Dog, powered with the Chrysler Imperial Six, with its rushing, tornado-like acceleration.

Only a Few SEA DOGS Available for June Deliveries!

Write at once for complete details about these big, beamy, rough water, practical runabouts.

TOPPAN YACHT TENDERS

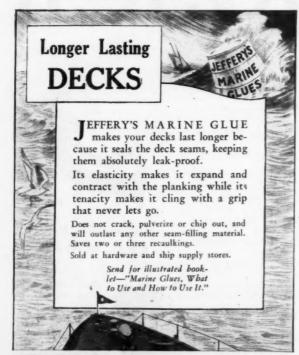
Developed especially to tow perfectly behind our fast SEA DOGS and SEA CREST EXPRESS CRUISERS 10-Foot\$96.00 12-Foot

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15-Foot\$115

Rowing and Sailing Dory Skiffs of similar design............\$58.00 up

TOPPAN BOAT and ENGINE CO., Medford, Mass.



152 Kneeland Street: Boston, Mass

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PLASTIC WOOD

When the deck or spars are gouged-when bolts or screws are moved—wherever a weatherproof, water-proof filling is required—use Plastic Wood. It has all the properties of wood except the grain, but will not chip or splinter.

From the can it handles like putty, but on exposure hardens quickly into wood. It has the adhesiveness of glue to metal, wood or fabric, will not disintegrate like putty, and takes stain, paint, varnish or lacquer perfectly. Recommended for stem, stern and garboard joints and for setting stuffing boxes.

At Ship Chandlers, Hardware and Paint Stores ¼ lb. 35 cts.

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HANDLES LIKE PUTTY - HARDENS INTO WOOD

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LUDERS Cabin Runabout

THE most ardent speed enthusiast or cruising fan will find immeasurable delight in the performance and accommodations of this lively forty-two-footer. It is a beautiful masterpiece of naval architecture and exclusively a Luders creation. It is different from any other standardized boat and combines the advantages of an express cruiser and high speed runabout. The streamline superstructure is perfectly balanced on a gracefully designed V-bottom and double planked mahogany hull.

Notable features worthy of special mention are: Mahogany finish, forward and after cockpits, enclosed bridge with chummy roadster seating arrangement, automobile type of controls, cabin house with four berths, kitchenette, toilet, lockers, etc. Speed, 28 to 30 miles per hour with the Sterling Dolphin roating engine.

Write today for complete information and price.

LUDERS MARINE CONSTRUCTION CO. STAMFORD, CONNECTICUT











Note:

The Double Clutch For-ward Drive of Joes Gear is fully protected by patents.



This sturdy boat of the Peconic Oyster Co., Greenport, N. Y., has Joes Husky Gear in the hold, handlin' the load of a Mianus Diesel as smooth as clockwork and has been for more'n five year! The crew finds Joes, with its high reverse, a mighty handy man around the boat

finds Joes, with its night reverse, a mighty described among crowded docks.

Joes "Husky" is givin' top-notch service in oyster boats, fishin' boats, tugs, tankers an' hundreds o' other commercial boats in U. S. waters. Men who are "boatin' for business" like Joes because it does its work so strong an' business-like.

You ought to write for Bulletin 25-A, tellin' the life history o' Joes. Along with it'll come the new edition o' "Rules o' the Road," free, while they last.

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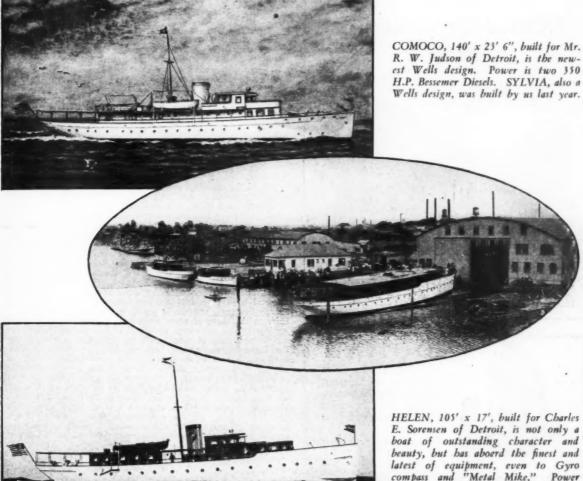
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OF MOTOR SPEED

New Defoe Yachts



HELEN, 105' x 17', built for Charles E. Sorensen of Detroit, is not only a boat of outstanding character and beauty, but has aboard the finest and latest of equipment, even to Gyro compass and "Metal Mike." Power consists of a 200 H.P. Bessemer Diesel.

WE cordially invite anyone interested in yachts and yacht construction to call at our plant, a three hour run from Detroit, an overnight ride from New York City in through Pullman, and inspect the work now under way. Many things in yacht construction can be seen and judged only during the construction stages of the job, and for this reason it gives us pleasure to demonstrate the high character of our workmanship in all branches of yacht building and power installation.

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BAY CITY, MICHIGAN

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The perfect mooring anchor with the patented bulb shank



An anchor of quality and economy-known throughout the Yachting world

Carried in New York stock from 50 lbs. to 1250 lbs. Prices on application

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Quality has for more than 38 years meant Reliability, Dependability and Durability to thousands of boat owners.

If you want more for your money, get a Doman. 5 to 60 H.P. Medium & Heavy Duty — 4-Cycle Built for Marine Purposes

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HI-DUTY Direct Connected UNIT



A direct con pump unit having Hi - Duty Pump with double relief (patent applied for) making for quiet, economical and lasting operation. Two sizes, 5 gallons and 15 gallons per minute. 12, 32 or 110 volt motors.

BOWLER, HOLMES & HECKER CO. 259 GREENWICH ST. NEW YORK, N. Y.

Yard and Shop (Continued from page 106)

A New Use for Boats

The Detroit Speed Boat Company, of Detroit, Michigan, has discovered a new and extremely lucrative use for the Model 826 Dodge Watercars. This well -known runabout, with 100-826 Dodge Watercars. This well -known runabout, with 100-horsepower engine, makes 33 miles an hour and carries 9 to 12 passengers. Operating at Granada Amusement Park, near the approach to the famous Belle Isle Amusement Park, in Detroit, this company has purchased two of the 26-foot Watercars and has undertaken to give a 12-mile ride for \$1.00 per person. On Decoration Day eight Hundred people were thus given a high speed thrill while more than five hundred who applied could not be accommodated. The Detroit Speed Boat Company is, therefore, buying a considerable fleet of new Dodge Watercars to take care of future business. to take care of future business.

More Clubs Join A. P. B. A.

Membership in the American Power Boat Association is rapidly becoming an essential of modern motor boat club activities. More clubs are continually enrolling under its banner and among the more recent of these are the Detroit Outboard Association, Detroit, the Keuka Yacht Club of Keuka Lake, New York.

A Useful Material

One of the newer products which has found a large market one of the newer products which has found a large market among boat owners and boat builders is a compound known as plastic wood. It is now available in practically all marine supply establishments, and has many uses about a boat. Plastic wood is the invention of a scientist who studied to create a material that would have all the properties of wood, but which could be moulded and worked into places where solid wood could not be easily used. In working out the formula it was necessary that in addition to its plactic form; it should adhead necessary that in addition to its plastic form it should adhere firmly to substances to which it was attached, and the finished product adheres as firmly as the strongest glue to wood, metal, fabric, and other substances. Plastic wood comes in air-tight tins and is of practically the consistency of putty. It handles exactly like putty and can be quickly worked with the fingers or knife to the shape or place desired. On exposure to the air it hardens to the consistency of wood, and when hardened, it has all the properties of wood, with the exception that it has not the natural grain and it will not chip or splinter. When hardened, it can be worked with any woodworking tools. It can be sand-papered, planed, sawed, bored, and it will take nails and screws exactly as any natural wood. Paint, varnish and stain is applied to Plastic Wood in its hardened state just as it is applied to any wood. Plastic. Wood is waterproof, greaseproof, and weatherproof. As a result, it is now widely used for boats. As for example, in setting stuffing boxes, repairing splintered spars and planking, covering counter-sunk screws, and in strengthening stem, stern and garboard joints. necessary that in addition to its plastic form it should adhere

A Nautical Show in Paris

A Nautical Show in Paris

Last year witnessed the first International Nautical Exposition in France, and in view of the large volume of business which resulted, the Chamber of Commerce of the Maritime industries, under the direction of Lucien Rosengart has decided to make this exposition an annual institution. The second International Show will be arranged again this year, and will be under the personal patronage of the President of the French Republic, and Government officials. It will take place at the Grand Palace of the Champs Elysees, from October 28 to November 13. It will be open to exhibits of many kinds which have connection with the water, and dealing with the industry, commerce, transportation, recreation, and sport. It would seem that this exposition would be a good opportunity for American manufacturers to display their products in France, and through this exposition reach many European markets, which are at present more or less inaccessible. For information or reservations should be taken up with Mr. Massieu, Commissaire General, 21 Avenue des Champ-Elysees, Paris.

Service for Great Lakes

We are advised that Curtiss C. Stewart, of Cleveland, has taken over the position of General Sales Engineer, with Joseph Van Blerck, Inc., and will cover the Great Lakes territory with headquarters in Cleveland. Offices will be opened in Cleveland, and a full and complete Service Department organized there, with the result that much better service on Van Blerck and Continental Van Blerck engines will be available to users of these machines on the Great Lakes.
(Continued on page 128)



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seph with and, nere, and s of You have to watch your speed in a Belle Isle Super Bear Cat. 40 doesn't sound like 40. 40 is away within the range of this sporting runabout's fine Hall-Scott engine.

Motor behavior is positively inspiring. And what a piece of workmanship! Nicety, finish, finesse, with an awful punch.

Here is power that makes it needless to sacrifice staunchness in a racing hull. Secure, easy, sure speed—lines that are the poetry of motion—Super Bear Cats are the ruling choice of noted sportsmen.

O.C.C. NEW YORK SALON, 217 WEST 57th STREET AMERICAN CAR AND FOUNDRY COMPANY



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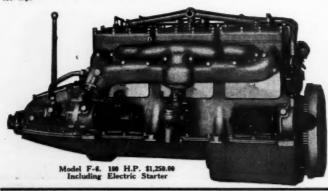
FROM the beginning of time pioneers who had the vision and courage to undertake new and bigger things have always met with scant encouragement. Only 15 years ago, Tom Day was considered foolhardy to attempt a transatlantic trip with his little 35-foot SCRIPPS equipped cruiser "DETROIT."

And last month an intrepid young man hopped over the same distance in hours where days had been consumed before.

What will the next 15 years develop in safe, rapid transportation?

All credit to the pioneers who are opening new fields of achievement and laying the ground-work for better boats, better cars, better planes, and BETTER MOTORS.

Model F-6 Scripps, 100 h.p. One of a fine line of motors from 10 to 150 h.p.





Scripps Engines Embody the Best Motor Refinements that Make Motor Boating a Constant Source of Real Pleasure. No

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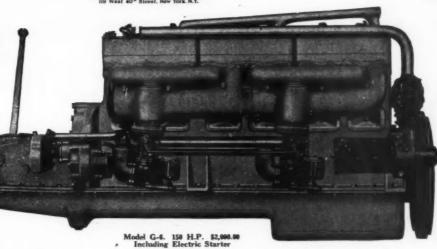
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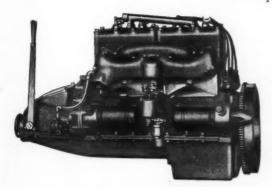
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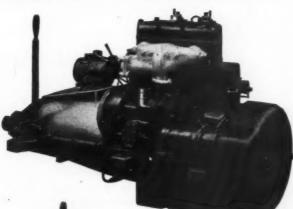


The Motor that crossed the Atlantic

10 H.P. to 150 H.P.









A NEW catalogue is now ready for distribution and will be sent

Model D-2. 18 H.P. \$650.00 Including Electric Starter

to anyone interested in motor boating, without obligation.

Model E-4. 70 H.P. \$1,250.00 Including Electric Starter

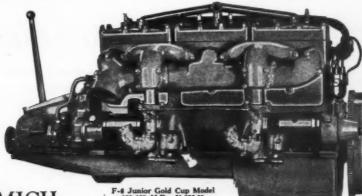
No Conversions or Conversion Parts are Used for Scripps Engines. They are 100% Marine Motors.

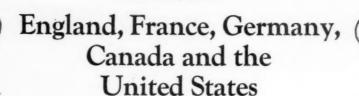
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Will Battle It Out at the Detroit Yacht Club September 3, 4, 5, 6

The D. Y. C. "Main Sheet" will again be the program that will help carry your advertising message to 15,000 enthusiasts of yachting. The Main Sheet presents your message with the sparkling background that bespeaks elegance and exclusiveness. No finer yacht club publication exists in which to broadcast what you have to sell and where to buy it at this time.

England, Germany, France and the United States will compete in the $1\frac{1}{2}$ litre class, and France, Canada and the United States will race for the Fisher International 12 litre class Trophy.

Forms for this handsome official program close August 10th. Space reservations received up to August 1st. Advise us your requirements now.

The Main Sheet

3101 Woodward Avenue DETROIT

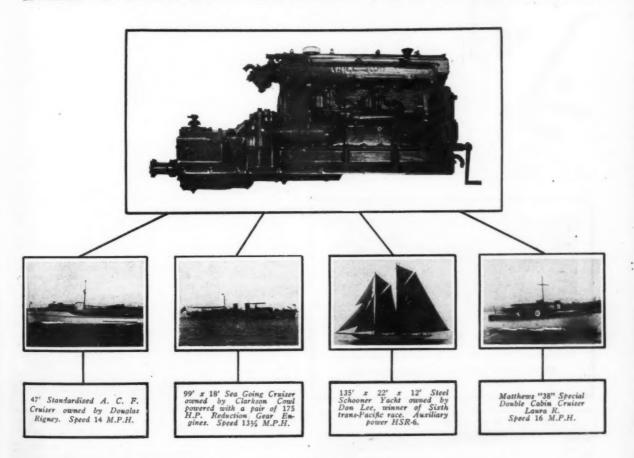


Advertising Index will be found on page 170

Resultant Performances Prove

HALL-SCOTT

REDUCTION GEAR SUPERIORITY



A PERSONAL inspection will convince you of the superior merit of HALL-SCOTT MARINE ENGINES, a complete line of which are on permanent display in our sales room.

HALL-SCOTT MOTOR CAR COMPANY

217 WEST 57TH STREET

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MARINE SUPPLIES

Everything for the Boat



GALLEYKOOK Gasoline Stove

Designed especially for boats Most efficient, safest and most substantial cook stove. Heavily gaivanized. Two burners Length 20". Width 17 ½". Height to top of rail 8½". Price \$27.00.

OBERDORFER AUTOMATIC BILGE PUMP

and 12 volts. Rum rom ignition battery annot clog. Capacity o 350 gallons per lour. Price \$21.50





WATERBURY MOTOR BOAT CLOCK NO. 2 lay time, jeweled silvered-dial marine sk. Polished brass. For bulkhead unting beleve decks. Winds and sets turning wheel. Price \$16.50.

THE careful buyer and economical boat owner gets his supplies at Zundel's because he not only saves money, but gets the finest quality and intelligent service. Write today for our latest catalog. Mail orders filled promptly.

R. W. ZUNDEL CO., Inc., 1 Block from South Ferry Whitehall St., and 2 Front St., New York, N. Y.



OUTBOARD MOTOR RACES

Everywhere. Every Week. Let us help you prepare

OUTBOARD MOTOR HEADQUARTERS BRUNO BECKHARD Flushing Bridge, Flushing, N. Y.

CARLISLE & FINCH SEARCHLIGHTS





7 inch-19 inch for Yachts and Motor Boats Catalog I of Incandescent Searchlights Catalog A of Arc Searchlights

THE CARLISLE & FINCH CO.

261 E. Clifton Avenue

CINCINNATI

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Yard and Shop

(Continued from page 122)

For Model Boat Builders

Model boat building is making a new generation of yachts men. It is encouraging to see the increasing interest which is being shown. A better appreciation of the lines of a craft is being developed in this manner. Races of these mode, craft are awakening a Boat Sense that is sure to produce many canny yachtsmen of the future.

ward of caution in the making of model boats may be of help to a beginner. Too many long hours have been spent, and much fine handiwork has been wasted by using ordinary cabinet-makers' glue in putting these boats to-

In the construction of model boats, only such materials should be used which will resist the elements. When the bread and butter method is employed, the use of Stanzall

Waterproof Joint Glue insures performance. Stanzall Waterproof Joint Glue, sold by L. W. Ferdinand & Co., 152 Kneeland St. Boston, Mass., will be found particularly adapted to this class of work.

A Novel Saftiboat

For the past year Brownback Motor Laboratories, Inc., have been making careful research into the possibilities of air driven boats. This research covered European work on air drives, what American work had been done, and a careful analysis of flying boat hulls, together with all performances of various types. result of these researches was so encouraging that model experiments were gone into, and basic laws covering this type of hull were investigated and formulas for design were worked out During the course of this careful research, types of designs were evolved for which patents have been applied, and the whole design and construction of air drive hulls worked down to a known quantity.

An engine was then developed, somewhat similar to the Shark marine engine, having an improved type of aluminum piston which will not slap or seep, a very efficient dry sump oiling system and an electrical starting system in conjunction with the air propeller. This engine will be available for the Brown-back design of air-drive boats, and for air drives of all kinds. It represents a distinct advance in air-drive motors, being built especially for air drive boat work, and embodying all of the necessary features such as electrical starting system, etc., and

which is extremely efficient and economical.

The Saftiboat is a distinct advance over all other types of boats for service in anything but the open sea. The hull is built on a system of trusses, which is much lighter, and many times stronger than the usual rib and keel construction. Sponsons built into the inside of the hull will absolutely prevent including in case of the grant process. sinking in case of the puncturing of the skin of the hull. last is extremely difficult because of the numerous trusses which support the skin and which tend to distribute any sudden stress, caused by the striking of obstructions, over the entire structure rather than allowing them to concentrate at one point. As nothing protrudes below the hull line, the boat can be run through shallow water and will not be damaged in case it strikes sand banks, mud banks, etc., and will not be damaged by running over obstructions floating on the surface.

The passengers sit in a large airy cabin protected from wind and spray, in separate overstuffed chairs, beside large windows, giving all the luxury of an observation pullman car. The gasoline tanks are carried in a separate compartment, ventilated by the aerial propeller, and draining overboard. There is absolutely no danger of fire and any smells from the engine are immediately carried away by the drive of the air propeller. support the skin and which tend to distribute any sudden stress,

New Yorker Buys Watercar

Wilbur H. Young & Company, Eastern distributor for the Horace E. Dodge Boat Works, of Detroit, has sold to William H. Vanderbilt, of New York, a new model 826 Dodge Watercar for use on Long Island Sound and at Newport and various other watering places. Mr. Vanderbilt has registered the Watercar under the flag of the New York Yacht Club. Mr. Vanderbilt is also a member of the Seawanhaka-Corinthian, Racquet and Tennis and Army and Navy Clubs, among others. Since four other members of the Newport colony, Fraser Jelke, Marion Eppley, Richard Gallatin and William Andrews, are also owners of Dodge Watercars, recently purchased through the same distributor, some lively one-design racing is assured at America's social capital and a series of contests for important prizes is now being arranged. being arranged.

(Continued on page 132)

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BETTER PERFORMANCE

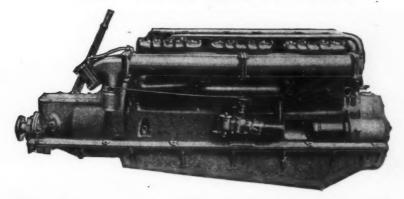
VALUE

QUALIT

EXTRA RESERVE

FINER WORKMANSHIP MORE ECONOMICAL

Boat Owners Who Know What is What Pick the STEARNS Six



Performance Proves its Worth

T is a notable fact that most Stearns Extra Reserve Marine Engines are sold to long-time boat owners, men who through their wide experience have been able to observe at first hand the capabilities of different makes of marine engines. These men buy not according to price or to the claims made for such and such an engine, but by what actual performance

A STEARNS POWERED WINNER Idler III, a 45-ft. cruiser owned by Otto von Au of New York, and powered with a six-cylinder Stearns Extra Reserve Marine Engine, is the winner of the 1926 Ocean Race of the Sheepshead Bay Yacht Club over a distance of 47 nautical miles.

has proven. Every day STEARNS Extra Reserve Marine Engines are demonstrating that they are unsurpassed for continuous trouble-free service, smooth running, quietness, flexibility and long life, which after all are the qualities a really good marine engine should have.

Write today for catalog.

PRICES AND SIZES OF STEARNS SIX CYLINDER ENGINES

Model	Bore & Stroke	H.P.	Revolutions	Weight	Price
MDU-6	51/8×61/3	90-125	900-1200	2500 lbs.	\$2375.00
MDR-6	51/8×61/2	160	1600	2050 lbs.	2565.00
MEU-6	51/2×61/2	100-140	900-1200	2550 lbs.	2525.00
MER-6	51/2×61/2	180	1600	2075 lbs.	2690.00

Stearns Extra Reserve Marine Engines are also made in 4 cylinders, ranging from 25 H.P. to 140 H.P.

MANUFACTURING **MOTOR** STEARNS

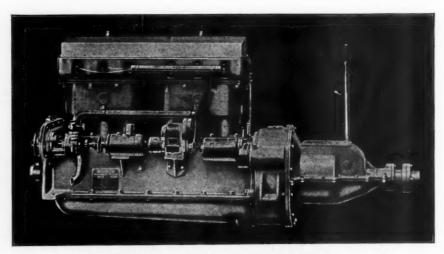
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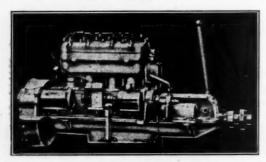
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You Can Get No Finer Performance Than What the BRENNAN Gives



BRENNAN DE LUXE MODEL—SIX CYLINDERS
Made in two sizes: 60 H.P., 4" bore, 5½" stroke. 100 H.P., 4¾" bore, 5½" stroke
Equipped with special reverse gear, giving full 100% speed astern

No matter how much you pay for a marine engine you can get no finer performance than what the BRENNAN gives you. When you buy a BRENNAN marine motor you can be absolutely sure that you are getting the best that engineering skill has produced in engines of equal power, and at the lowest possible price.



BRENNAN STANDARD MODEL E-4 Medium Duty, 35 H.P. at 1000 R.P.M. High Speed, 55 H.P. at 1600 R.P.M. Bore, 4 ½". Stroke, 5".

The velvety smoothness, flashing pickup, flexibility, 100% reverse speed and real economy of BRENNAN Marine Motors emphasizes their superior performance. It is Brennan's thirty years' experience in building long-lasting marine power plants, plus the high standard of BRENNAN quality and workmanship that produces these delightful results which boatowners want and find in the BRENNAN. Begin now to enjoy the finer performance of BRENNAN power. Prompt shipments made from stock. No delays. Write today for latest catalog and prices.

There's a BRENNAN for Every Type of Boat up to 75 Feet in Length

BRENNAN MOTOR MANUFACTURING COMPANY

500 E. Water Street

Syracuse, N. Y.

HACKERCRAFT

28 FOOT DOLPHIN DE LUXE



An unretouched picture of the Dolphin-Deluxe

Safe, dry, seaworthy, comfortable runabout

The water-tight bulkhead makes it NON-SINKABLE. The INDESTRUCTO GLASS windshield eliminates danger of being cut and scarred for life. The Goodrich rubber bearing gives a smoothness and quietness not possible in a metal bearing. The ELGIN panels and special instruments. Full leather, spring seats and bodies, together with numberless other refinements, make this De Luxe model the greatest runabout value in America. The fastest stock runabout, speed close to 40 miles. \$4,950 completely equipped.



An unretouched picture of the Dolphin

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DOLPHIN

24 FOOT RUNABOUT

All the qualifications of the DeLuxe model in a smaller boat. The most seaworthy and best performing runabout under 28 feet ever built. Speed close to 34 miles. \$3,450 completely equipped.

A PAIR OF THOROUGHBREDS

These Hackercraft are the masterpieces of John L. Hacker, designer or originator of most of America's fast boats. Let us prove these claims by actual test. You be the judge.

SEE THESE MODELS ON DISPLAY

JOHN WANAMAKER STORES
NEW YORK CITY

WALTER H. MORETON CORP. BOSTON, MASS.

CHICAGO MOTOR BOAT MART CHICAGO, ILL.

BELLE ISLE BOAT & ENGINE CO. DETROIT, MICH.

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KUHLS'

ELASTIC SEAM COMPOSITION Keeps the Seams Water-Tight



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WITH KUHLS' Elastic Seam Composition in the deck seams and KUHLS' Elastic Glazing Composition in the hull seams you are assured a water-tight boat for eight to twelve years. Together they stand as tried and true protectors against seam leaks due to changes in temperature, wetting and drying, swelling and shrinkage, wringing and twisting. Once applied they become a part of the woodwork, semi-hard but never brittle, yielding to expansion and contraction but always adhering to the seam sides, making

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Saftiboat is more than a name, it implies much; but is it not enough to mention that here is a speedy boat with the 'additional features of economy, beauty, shallow draft, and seaworthiness? In Saftiboat you can run wherever you can see water.

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BROWNBACK MOTOR LABORATORIES, INC. NORRISTOWN, PA.

The Utility Folding Seat for Motor Boats



Frame of unbreakable malleable castings; seat of either oak or mahogany finish.

Diameter of seat 11"; projection extended 14"; folded 4"

Price \$5.00, plus postage or express charges.

Liberal discount to dealers Manufactured exclusively by

E. G. LONG COMPANY

50 Church Street

New York

Yard and Shop

(Continued from page 128)

A Good Trip for a Yacht

An illustration of the remarkable strides that have taken place in yacht design and construction, as a result of the Diesel Engine, is the recent performance of the 188 foot Diesel Yacht Arcadia, owned by Mrs. Huntington R. Hardwick of Boston, designed by Cox & Stevens, built by the Newport News Shipbuilding & Drydock Company and equipped with a pair of 900 h.p. Winton Diesel Engines.

This yacht while in every respect a seagoing craft, substantially built, having remarkably commodious quarters for Owner.

This yacht while in every respect a seagoing craft, substantially built, having remarkably commodious quarters for Owner and Guests, and carrying fuel and stores of all descriptions sufficient for extended off shore cruising, readily maintains a speed of 16 knots with an entire absence of vibration.

As an instance of what can be accomplished with this type of yacht, Arcadia left Boston at half past three one afternoon, and arrived in New York Harbor, coming by way of the Canal, at six fifty the following morning—her actual average speed from port to port being 15.2 knots, including the time spent in coming through the Cape Cod Canal.

This practically puts Arcadia, as far as making the voyage from Boston to New York is concerned, in the same class as the express steamers built for that special run.

To accomplish this result in a vessel of the dimensions of

To accomplish this result in a vessel of the dimensions of Arcadia in conjunction with her seaworthy characteristics and general attractiveness from the yachtsman's point of view, is remarkable achievement.

Boston to Have Show

New England will be alive in all motor boat events the coming season for with the big Gold Cup Races, and many other boat gatherings during the summer—will have a tendency to keep the interest alive during the coming fall and winter months. Following the New York Boat Show, the big Boston Boat Show will open early in February in the Mechanics Building where many big and successful shows have been held.

The New England Show will be held under the direction of Chester I. Campbell, one of the best known exposition directors in the country and who is not a stranger to the motor boat world.

For many years he has been closely identified with the boat interest, having organized and acted as Secretary of the New England Engine and Boat Association for a number of years.

Fast Outboards Go Abroad

An indication of the interest in outboard racing is seen in the purchase by Major Segrave, (who broke the world's automobile record recently at Daytona), of a Johnson Big Twin and a Baby Buzz, which he intends racing in England. After seeing them in action at the Miami Regatta, he decided to take boat and motor home.

a boat and motor home.

Signor Orlando, of the Isotta Frachini Co., Milano, Italy, who was in the United States in connection with the De Pinedo Exposition, also was initiated into this new and thrilling sport, and was so interested that he immediately arranged to take a Johnson Big Twin, and a Boyd-Martin Baby Stepper (duplication) of the state of the s

a Johnson Big Twin, and a Boyd-Martin Baby Stepper (dupin-cate of the boat which established new World's records at Miami and Houston Regattas) back to Italy with him. The interests shown by these two famous engineers is sub-stantial evidence that the racing of this type of boat must have a real thrill, and it is interesting to look ahead and see the possibility of International Contests in these diminutive fast boats in the near future.

boats in the near future.

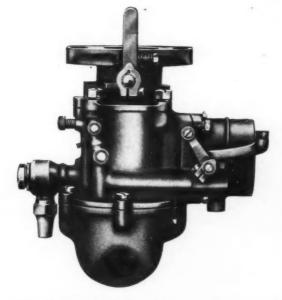
That such contests are entirely possible is shown by the purchase of Johnson Big Twin Motors by some of America's foremost racing men; men who have won such trophies as the Gold Cup, Ponciana Trophy, Elgin Trophy, etc. It is something to think about and wonder as to what speeds will really be reached by these atoms of power on the proper boat. Thirty miles an hour, the record for 1½ liter class in this country has already been reached, and who can say what will be the limit. Trophies and competition for outboard racing are among the World's finest for any branch of the sports, and number the World's finest for any branch of the sports, and number among them the two wonderful Col. Green trophies, the Hall-Scott and many others.

Cruiser Racer Buys Watercar

Commodore Arthur L. Bobrick, of the Colonial Yacht Club, of New York, which has recently opened its \$2,000,000 club house at 257 Madison Avenue, has sold his famous cruiser Brickton IV, with which he has won many important racing events, and has purchased a 26-foot Dodge Watercar which, with a 100 h.p. motor, makes over 33 miles an hour.

(7ENITH

SAFETY



PLUS!

The New ZENITH Marine Carburetor

Now there is a carburetor especially designed to meet the peculiar requirements of water travel—acarburetor which, in addition to other special advantages for marine uses, affords a wide margin of safety!

No longer need any considerable deviation from a level position cause fuel to flood over the carburetor jet, or to be so low in the jet that the weak mixture may cause back-firing, with its attendant dangers, as with the ordinary carburetor.

A Marine Carburetor for Marine Engines

The New Zenith Marine Carburetor overcomes these troubles. Pitching, tossing, quick turns, etc., have no effect on its efficient functioning. Boat can tip 50 degrees fore or aft or 40 degrees sidewise without its operation being in any way disturbed.

The New Zenith Marine Carburetor is especially designed for the power boat—a marine carburetor for marine engines.



The New Zenith Marine Fuel Filter

—removes every last particle of foreign matter from the fuel before it enters vacuum tank or carburetor. The fineness of the filtering space is equivalent to a 120-mesh wire gauze. Will withstand 20-lbs. pressure without leaking, and can be taken apart, easily cleaned, and put together with the fingers—no tools necessary. Assures certainty of clean fuel and smooth, uninterrupted operation.

"The boat owner cannot afford to economize on safety."

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ZENITH CARBURETORS
Over 1200 Service Stations

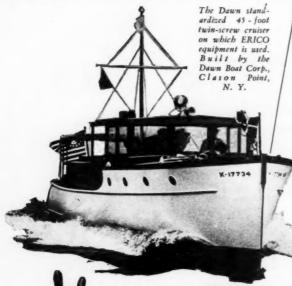
MAIN OFFICE and FACTORY DETROIT MICHIGAN

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Famous DAWN CRUISERS

Are Fitted with ERICO MARINE SPECIALTIES



BAWN BOAT CORPORATION

MAYAL ARCHITECTS

VACET BITS

STANDARD WILLIAM OF PROPERTY OF THE DAWN ON PRHYSEN

BY SHADON STANDARD STAN

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wheel is standard equipment on all our cruisers.

In all our cruisers.

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order filled, without any order center is a
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Dains BOAT CORP.



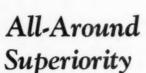
Chris B. Nelson, Vice-President of the Dawn Boat Corp.



Cruiser Type Chain Steerer







ERICO MARINE SPECIALTIES are so far superior in every way—so handsome in appearance—so modern in design—so sound in construction—so enduring in service—and so reasonably priced that thousands of boat owners and buyers now insist on ERICO equipment. That is also why the leading naval architects and boat builders use ERICO Marine Specialties.

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Intake and Exhaust Pipe Connections



Control Rod Socket





Electric Running Lights



ERICO-KAINER CO.

SAECIALTIES CHICAGO,
ILLINOIS

Advertising Index will be found on page 170

Winners! Autopulse equipt



GREENWICH FOLLY Gold Cup Winner, 1926



BABY BOOTLEGGER Gold Cup Winner, 1925



RASCAL Dodge Trophy Winner, 1926



ROWDY Dodge Trophy Winner and 150-Mile Sweepstakes Winner, 1926

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THE AUTOPULSE Patented Magnetic Fuel Pump can. be depended upon at all times to keep a constant flow of gasoline from the tank to the carburetor regardless of angle, altitude, vibration, temperature, or condition of water and no matter to what other tests or speeds it is subjected. That is why it is used on the champion speed boats, such as Greenwich Folly, Baby Bootlegger, Rascal, Rowdy, Packard Chris-Craft II, Lady Helen I and II, Spitfire IV and many others.

Furthermore, AUTOPULSE is so far superior to any other known method or system of delivering fuel from the tank to the carburetor that it is now used by 95% of the boat builders and engine manufacturers. Equip your engine with an AUTOPULSE and see the difference.

DISTRIBUTORS EVERYWHERE

The AUTOPULSE is available at the leading automotive and marine supply dealers in all principal boating centers. If your dealer cannot supply write us.

IRELAND & MATTHEWS MFG. CO.

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Detroit, Michigan



510 Class-10 miles

- 1. Dart "1701-N"-Littin
- Other . "Alice Jean" 26-foot "Josephine M"
- ."Vamp" Runabouts)

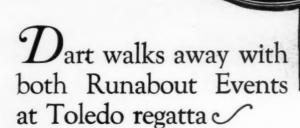
Free-for-all-12 miles

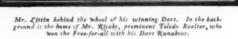
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- 2.
- Other 26-foot | .. "Lo Tom"
 Runabouts. "Alice Jean"

Dart design and construction permit utmost speed from any given motor



Maumee River Yacht Club
Mr. Littin makes his business a hobby.
He is the Toledo dealer for the Dart,
After his Memorial Day win in the 5to
Class he said. "The result was no surprise to me. It merely intensifies my
enthusism for the Dart Runabout in
my 25 years in the business I have never
seen a better designed or finer constructed boat. I only wish that other Toledo
Dart owners had had their boats sufficiently broken in for racing so that we
could have made a clean sweep,"





Heretofore no mention of or claims for the speed of Dart Runabouts have been made. However, the results of these races justify the statement that Dart design and construction permit utmost speed from any given motor.

Mr. Littin's Dart was powered with a Capitol Curtiss 90 h. p. motor. His time over the 10-mile course was 19 minutes and 15 seconds, an average of over 31 miles per hour.

Mr. Ricaby's Dart was equipped with a Cross Keysor 200 h. p. engine. His time over a 12-mile course was 17 minutes and 32 seconds, an average of better than 34 miles per hour.

The accompanying photograph of Mr. Littin's Dart

under way demonstrates the low angle at which a Dart planes. This is a distinct feature made possible only by perfect design and superior craftsmanship. Another advantage lies in the fact that the rear passenger compartment is free from spray.

If your heart is set upon possessing a boat in the small craft class, you should, in justice to yourself, investigate the Dart 26-foot Runabout (10 passenger capacity). Or if a smaller one appeals to you, inquire about the Dart 221/2-foot Junior (8 passenger capacity). You have your choice of several motors for the Runabout. The Junior is powered with the Gray 6-90 as standard. Built in the shops of the Indian Lake Boat Company, Inc., East High Street, Lima, Ohio.



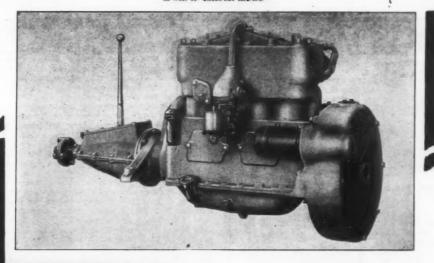
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"This engine worked absolutely perfectly and I was so well pleased that I later purchased a 26-30 h.p. Heavy Duty Buffalo," says O. V. Harrison, manager of the Loudon Sand & Gravel Co., Loudon, Tenn., regarding the performance of his 14-30 h.p. Buffalo Engine.

Hundreds of other Buffalo owners tell the same story of satisfactory service, low upkeep cost, economy in fuel and oil, absence of delays due to engine trouble, ample power always available, engines which are smooth-running, dependable and efficient.

No matter whether it is a runabout, cruiser or a work boat, there is a Buffalo Engine which will give your boat the same unfailing power, for Buffalo Engines are built in a wide variety of sizes and designs.

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BUFFALO GASOLENE MOTOR CO.

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Price \$398.00, without reverse gen

Model "J" 16 H.P. Bore 3%", Stroke 4". The lowest priced engine in America. Complete as rn, \$225.00

Interchangeable with Ford parts





Model "RS" 35 H.P. Price complete without

ROBERTS MOTORS SANDUSKY, OHIO

TIEBOUT EQUIPMENT SERVICE

From palatial "Delpines" to perky little "Wee Scotts" (both entirely TIEBOUT equipped) we offer to builders of custom or standardized craft, both power and sail, a complete equipment service.

Here is a particularly fine example of the many types of standardized boats which are equipped by

"TIEBOUT THROUGHOUT"



International Racing at Detroit

(Continued from page 36)

The rules for the race put no restrictions on hull or power plant other than that the motor shall not exceed 12 liters in piston displacement (732 cubic inches) and that no superchargers

piston displacement (732 cubic inches) and that no superchargers will be used. The supercharger restriction was added at the request of the French, as they have no supercharged motors available at the present time.

The hulls of the competing boats may be of either the displacement or hydroplane type. For American boats, of which there can be only three, there are many possibilities. Gar Wood of Detroit has signified his intention of entering and building a new hydroplane. Already he has two new Gold Cup engines, which he has designed and built for this year's Gold Cup race, well along toward completion. Jay Smith of Algonac, Michigan, so it is reported, is building two Gold Cup boats, one of which is to be powered with a Miller 16 cylinder engine. As the Gold Cup race this year will take place on August 6, four weeks before the International event at Detroit, Mr. Smith would have sufficient time to race his place on August 6, four weeks before the International event at Detroit, Mr. Smith would have sufficient time to race his Gold Cup boats at Greenwich, Conn., and then build new hulls but of the hydroplane type and use the same power plants for the 12 liter race at Detroit on Sept. 3.

Horace E. Dodge who owns two 24 cylinder Duesenberg motors of the Gold Cup size will also probably be interested in hull-ling for the International race.

in building for the International race.

in building for the International race.

In addition to these, all of the Gold Cup boats will be possibilities for the American team and with the 5 or 6 new Gold Cup boats which are now building, as well as several 1926 Gold Cup boats which are still very fast, little trouble should be experienced in getting together a team of three very fast and reliable boats to represent America. At Houston, Texas, also there are several very fast 725 cubic inch hydroplanes which could be counted on, if necessary.

The rules provide that each country shall be represented by not more than three boats. With three craft from America already assured, as well as one from Canada and one from France, a real International race should result.

The race will consist of three heats of 30 miles each at Detroit on Saturday, September 3.

The race will consist of three heats of 30 miles each at Detroit on Saturday, September 3.

The French challenger for the 12 liter trophy is Sadi III owned by Dr. Etchegoin of Paris, France. This boat is a single step hydroplane 7.06 meters in length (23 feet 2 inches) and powered with a Hispano-Suiza motor. In official trials made on Sept. 30, 1926 at Paris, Sadi III made a speed record of 101 kilometers, 954 meters per hour. This is equivalent to about 62 miles per hour and is the average of three runs upstream and three down stream with the motor not stopped. For the International 1½ liter class, prospects are equally bright for a real race. William Rand of Buffalo has purchased Dixie Flyer, formerly owned by the late D. P. Davis of Tampa, Florida. This boat raced for the Duke of York trophy at London last year and may be sent to England to race

of Tampa, Florida. This boat raced for the Duke of York trophy at London last year and may be sent to England to race for the same trophy this year. Mr. Rand has given assurances that he will have his boat at Detroit to be one of the American team for this year's race. Little Shadow, the other American boat that raced in England last year is now owned by Thomas Milton. Little Shadow has already been entered for the Detroit races. Both of these boats were designed and built by the Purdy Boat Company of Port Washington, N. Y., and are all powered with Miller engines.

Commodore Gar Wood has purchased the 1½ liter engine installed in Rainbow V which also raced in England in 1926. Commodore Wood has promised to build a new hydroplane hull for this power plant and race her at Detroit. This would make three very fine and fast craft to represent America in the 1½ liter class.

As foreign contestants, the entry of two German boats has already been received. These are entered by R. C. Krueger of Berlin, Germany. Efforts are being made to have the English and French each enter a team of three boats and the prospects are very good that both of these countries will send over boats.

send over boats.

The race will consist of three heats of 15 miles each at Detroit on Monday, September 5.

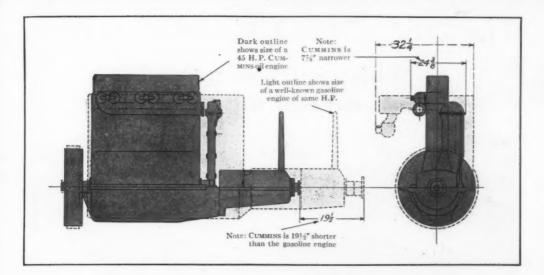
The Detroit program for Sunday September 4 provides for a race for the Detroit Yacht Club Trophy for the Development Class. This race is open to displacement boats or hydroplanes of not over 625 cubic inch piston displacement motors.

Three heats of 21 miles each will be run.

On Monday, September 5 in addition to the three heats for the 1½ liter boats the annual 150 mile Sweepstakes race will be held under the same rules and conditions that governed the 1926 event.

The 151 inch hydroplanes will be given four heats of 6 miles each to decide the supremacy in this class. Two classes will be provided, one allowing superchargers and the other class without superchargers. (Continued on page 142)

NO BIGGER THAN AN ORDINARY GASOLINE ENGINE



This Full Diesel will fit right in where the gas engine comes out!

Look at the dimension drawings shown above. Note that the 45 H.P. CUMMINS Oil Engine is shorter and narrower than the well-known gasoline engine of the same H.P. rating.

Now you can replace your gasoline engine with a Full Diesel that will fit right in. You can get the same power and flexibility plus the tremendous advantages and economies of oil engine power. The day of the oil engine is here! Send for all the facts today.

CUMMINS ENGINE CO. ~ Columbus, Indiana

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Oil Engines

128 to 75 H.P.

Model "F"—1 cyl. 12½ H. P.—600 R. P. M.

Model "N"—1 cyl. 15 H. P.—600 R. P. M.

Model "F"—2 cyl. 25 H. P.—600 R. P. M.

Model "N"—2 cyl. 30 H. P.—600 R. P. M.

Model "F"—3 cyl. 37½ H. P.—600 R. P. M.

Model "N"—3 cyl. 45 H. P.—600 R. P. M.

Model "F"—4 cyl. 50 H. P.—600 R. P. M.

Model "N"—4 cyl. 60 H. P.—600 R. P. M.

Model "F"—6 cyl. 75 H. P.—600 R. P. M.

CUMMINS ENGINE COMPANY
Columbus, Indiana
Please send me your new catalog and prices on the models "F" and "N."

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ABUNDANT POWER THAT IS ECONOMICAL AND DEPENDABLE ALWAYS

The SEA SLED CORP. says-

"When better engines are built we will use them..."



Model 23 Sea Sleds are Buda Powered

 $S^{\rm EA}$ SLEDS are equally famous for their extreme seaworthiness and the absolute dependability of their power plants.

The Sea Sled Corp. selected Buda marine engines as standard power equipment for their 23-foot models because Buda's established reputation for long life, surplus power, and trouble-free operation insure purchasers of Sea Sleds the superlative in engine performance. Another reason is the Buda nation-wide parts stations where prompt and intelligent service on genuine Buda parts may be obtained.

Budas are built for marine use; their design and construction emphasize dependability and smooth and clean running. No better engines of their size are built. That is why the Sea Sled Corporation broadcast in their descriptive literature, "When better engines are built Sea Sleds will use them."

THREE BUDA MODELS BMA-6-S, 60-85 H.P.

BM-6, 50-80 H.P. BM

GM-6, 70-100 H.P.

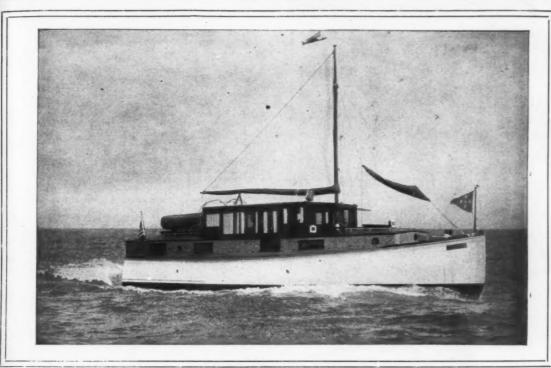
Write Today for Further Details

THE BUDA COMPANY, HARVEY, CHICAGO ILLINO IS

Established 1881



Advertising Index will be found on page 170



The Matthews "38"



With the six-cylinder, 65 H.P. Kermath the Matthews "38" has a speed of 12 m.p.h.



The 150 H.P., six-cylinder Kermath gives you a speed of 17-18 m.p.b. in the Matthews "38."

There's Nothing Finer Built

Everywhere owners of Matthews 38-foot Cruisers attest to the extreme satisfaction these handsome boats offer. This satisfaction extends from the owner who seeks performance and handling qualities primarily to his family who expect the comforts which the roomy cabin, the handy galley, the large locker spaces provide and the general atmosphere of luxurious ease which prevails aboard the Matthews "38." This standard of livableness is an outstanding feature for those who enjoy spending their vacation days aboardship. Furthermore, this summer home afloat is a seaworthy cruiser with the distinct advantages of superior riding qualities, 12 miles per hour with the 65 H.P. Kermath sixcylinder marine motor, and unexcelled handling qualities in the roughest waters. This boat is yours afloat at Port Clinton for \$6,500.

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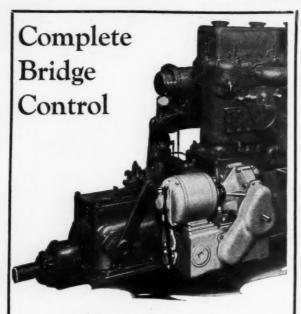
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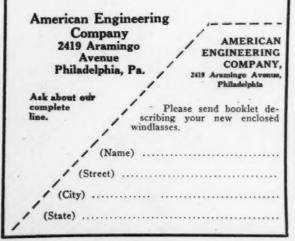
REMOTE REVERSE CONTROL

Power-operated remote control of the . reverse gear now makes it possible for the man on the bridge to have complete control of the engine as well as the helm.

The moving of a lever on the compact, non-magnetic control unit on the bridge causes the electro-hydraulic power unit to operate the reverse gear and clutch.

Every movement of the bridge control is duplicated exactly in the movement of the reverse gear. This makes it possible to lock the reverse gear in the forward, reverse, neutral or slipping position.

It enables you to run your yacht as easily as you run your automobile.



International Racing at Detroit (Continued from page 138)

Gold Cup Race Plans

Plans are about completed for the annual race for the American Power Boat Association Gold Cup which will be held under the auspices of the Indian Harbor Yacht Club at Greenwich, Conn., on August sixth. With two new boats under construction by Gar Wood, two reported to be underway by Chris Smith, one by Luders and one new craft already completed by Hacker but as yet without a power plant, it looks as though the competition this year for the famous trophy is going to be the keenest ever witnessed. The rules for this race will change in 1928 when hydroplanes will be permitted and due to this change, it was thought that no new boats would be constructed for the 1927 event but evidently the Detroiters are out to get the Gold Cup back to the west even before the hydroplanes are permitted to race.

Most of the 1926 Gold Cup boats are available and being made ready for this year's race. Commodore George Townsend will defend with Greenwich Folly, the 1926 winner. Caleb Bragg will probably enter both Baby Bootlegger, winner in 1924 and 1925 as well as Hotsy Totsy. Dick Hoyt will have Imp in shape and Miss Columbia will be running. Shadowvite, the boat that won two heats in last year's race is now owned by George Graves, Jr., of New Haven, and has already been entered. Mrs. Delphine Dodge Cromwell has signified her intention of entering two boats, but Horace E. Dodge has announced that he will not race this year although when the starting gun is fired it is expected that his several craft will not be far away. The three Gold Cup racers from Florida, Palm Beach Days, Miss Tampa and Sara De Sota are not expected to take part this year.

At the Gold Cup Regatta there will be events for the 151 inch hydroplanes, for stock runabouts and for the several classes

At the Gold Cup Regatta there will be events for the 151 inch hydroplanes, for stock runabouts and for the several classes of outboards. So taken altogether the prospects for the 1927 racing season in the major events is about the brightest that it has ever been.

Contest Board for Outboards

With Mr. Woodin's donation of the National Championship Trophy and the formation of the new Contest Board authorized at the meeting last October of the A. P. B. A. outboard motor

The Contest Board follows the lines of the successful organiavider application. Briefly all the drivers in sanctioned or approved races are eligible to membership in the Contest Board and the entire membership constitutes the Rules Committee, whereas the drivers in any particular contest constitute the

Eligibility Committee for that event.

The National Championship Trophy is open for competition between the boats finishing first, second and third in sanctioned races with motors not over 20 cu. in. piston displacement. This means that there will now be an opportunity to see the winners of events in various sections in actual boat to boat competition.

Except for a slight change in their arrangement the racing rules for 1927 are the same as for 1926.

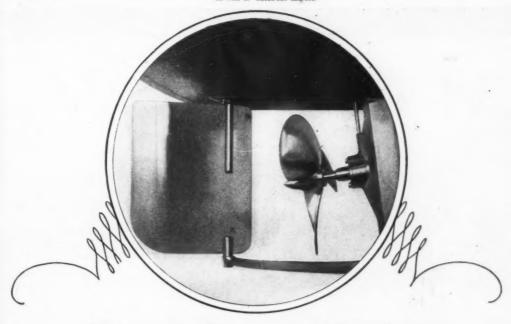
The first competition for the National Championship Trophy will be held in conjunction with the Gold Cup Regatta at Greenwich, Conn., on Aug. 6. Entries and requests for further information concerning this or other racing dates should be addressed to Bruno Beckhard, Outdoor Motor Headquarters, Flushing, N. Y.

Evinrudes in Toronto

The New Evinrude Branch at Toronto, Ontario, Canada is now in full swing under the direction of L. L. Harrison, Branch Manager. A complete line of 1927 models is now on display, as well as a line of boats, marine engines and acceptable.

cessories.

The J. W. Magnus Company who, for a number of years have been handling Evinrudes in Toronto, still continue as dealers, and as such will continue to stock a complete line dealers, and as such will continue to stock a complete line of Evinrude motors, accessories and will also carry a complete line of larger marine engines and repairs. J. W. Magnus, the manager, who has had years and years of boat and motor experience is very much on the job and the Evinrude Motor Company welcomes this opportunity of expressing its appreciation of the continued cooperation of the J. W. Magnus Company. Cooperation of this kind among the various engine dealers in Toronto is bound to build up the market and to be of real help to boating in a province that is undoubtedly destined to become one of the greatest of world markets for outboard and marine engines and boats. and hoats.



The Industry's Choice for Shafting and Underwater Parts

FOR many years America's leading boat builders have standardized on Tobin Bronze for propeller shafting and other underwater parts.

Tobin bronze offers remarkable resistance to corrosion, has great tensile strength with high yield point and is tough and uniform of structure. It is the most economical metal combining all these requisites for exposed metal parts.

Tobin bronze is furnished in sheets, rods, tubes and turned and straightened shafting. It is manufactured solely by The American Brass Company. The name Tobin Bronze is rolled in the metal.

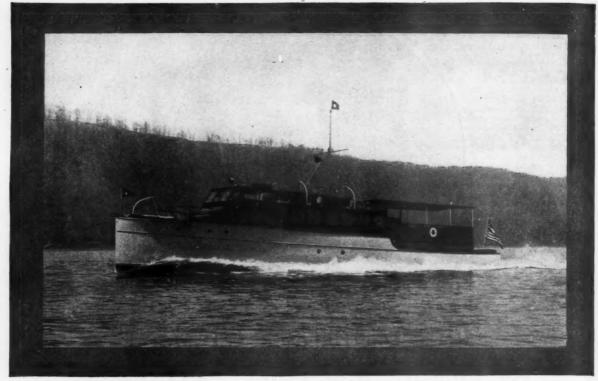
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The Lone Star-designed and built for MR. GEORGE GALT BOURNE

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BEHIND the leadership of Consolidated there is an ever-increasing group of Yachtsmen who pronounce the superiority of Consolidated built boats.

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Morris Heights, New York

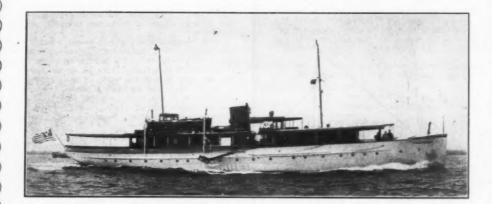






Advertising Index will be found on page 170

WINTON Diesel Engines



"RENE." Alfred P. Sloane, owner. Designed by John H. Wells. Built by Consolidated Shipbuilding Corporation. Length over all, 118 feet, 7 inches. Length waterline, 110 feet. Beam, 21 feet, 5 inches. Draft, 7 feet. Powered with two Model 111 Winton-Diesel Engines, total 400 H.P.



The WINTON ENGINE COMPANY CLEVELAND OHIO U.S.A.

The DUNPHY SAND DAB



-an outstanding value

Note the specifications—see what you get with the Sand Dab. It's an outstanding value straight through.

Length—18 feet. Shallow draft tunnel stern. Runs in 11 inches of water. Beaches anywhere—the propellor is protected. Salt water equipped. Room for 9 passengers. Has 15 H.P. Universal Flexifour Motor with electric starter. Makes 15 miles per hour. Hull is cedar planked, brass and copper fastened, mahogany finished. \$1,275 F.O.B. Eau Claire.

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See Dunphy Boats in our Permanent Shou Room in Chicago - 1725 Diversey Blvd.

DUNPHY BOAT MFG. CO.

Dept. C7

Eau Claire, Wis.







Building a Short Wave Transmitter

(Continued from page 38)

may further check your wave length. Of course your license will permit you to operate the boat set on wave lengths between 109 and 130 meters only and even though you have no wavelength you can approximate this quite closely from some calibbrated receiver with which you may come into contact through the air.

You will have to shift the clip on the coil L-1 and also both variable condensers until the set oscillates on the correct wave, but this is not as difficult as it might seem. You may also have to increase the rheostat in order to make the tube light up more brilliantly, but once you get it set there will be no need for further adjustments.

In doing this tuning up it is excellent to get hold of a hot wire or a thermo-couple ammeter reading up to one-half ampere. This, if connected into the aerial circuit, above the first variable condenser will give you a reading for each adjustment you make. Of course the idea is to get the maximum amount of juice here, but this does not always indicate as much as you might think. Sometimes transmitters actually do better work over greater distances with the ammeter showing less than maximum.

maximum.

Another way of doing this is to get a single small flash-light bulb with a little socket for it. To the two connections on this socket connect the ends of a coil having about three or six turn: of insulated wire possibly three inches in diameter. Sometimes only one turn will do the work. This is held near the grid end of the coil L-2 and as the set comes into resonance through manipulation of the condensers and the clip, the little light will burn brightly as the adjustment's are improved. If it only burns a dull red at first, change the adjustments until it gets better or until you seem to have it at the best point. This should also be on the proper wave-length.

on the proper wave-length.

A transmitter is much like a receiver—it is made to cover a certain band of wave-lengths, just as your broadcast set will receive from 220 to 550 meters, so this transmitter will operate from about 80 meters on up to possibly 200. It is up to the operator to put it on the proper wave and then leave it there, for once out of adjustment it is necessary to go through the entire tuning process again to bring it back. Remember that the wave-length bands are crowded and where the Government assigns you, there you must stay. A little way in either direction and you may be interfering with naval or aircraft stations

or possibly with some short wave broadcast relay. In operating on the low waves, it is well to remember that you are dealing with high frequencies and since these have the easy facility, to leak off, you must take care to conserve every ounce of energy possible. This means good insulation throughout and it also means good instruments, particularly the variable condensers which should be of the real low-loss type, well made and rigid. In winding the coils, remember to use absolutely no binder of any kind. This includes shellac, varnish, collodion or anything else. If the ends of the wire are properly locked as shown in the drawing, and the wire is put on tightly, there is no reason why it should ever come loose unless you use cheap fibre or cardboard tubing which will stretch and shrink with the weather.

Using B batteries as a source of plate potential it is easily possible to change this set into a radiophone, but remember this; when the set is used thus, it will only cover a fraction of its regular distance and at the same time it is apt to set up a considerable amount of interference. The code rig is preferable every time and even though the set is operated as a phone, it is still necessary to have the operator's and station licenses.

licenses.

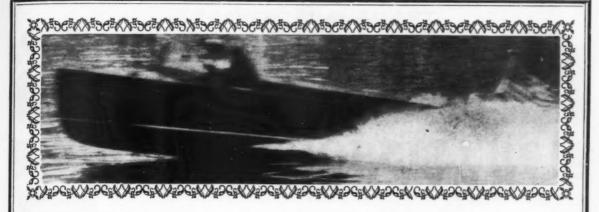
The change is easily made. A single turn of number 14 rubber covered wire is placed about the secondary coil, L-2. This should be arranged so that it may be slid back and forth until the set works the best. The ends of this single loop of wire are brought out and simply connected to a microphone. The better this microphone is, the better the voice transmission will be. According to Government regulations this type of radio-phone cannot be used for broadcasting purposes and one sure way to get into trouble is to send out music on it. It may, though, be profitable to secure a special permit for this, but it is not advisable on account of the interference the set may kick up.

life the loop of wire is in place and it is decided to use the telegraph key, the loop should be removed first, but of course all the time that the microphone is in use, the key must be kept depressed in order to complete the circuit. The loop will ordinarily absorb a lot of energy and when the set is used for telegraphy it will cut down the radiation considerably. Another thing, the ammeter in the aerial circuit should be short-circuited when the set is once in adjustment for this too will cut down the range. If the loop of wire with a small flash light bulb is used

(Continued on page 164)

at

re



SPEED—IN SAFETY AND COMFORT

The severe demands of high speed on straightaway and turns are met in safety and comfort with the Viking Express. Steam bent frames of native white oak, screw fastenings, planking of \(\frac{5}{8} \)" mahogany, brass and copper wherever metal is used; these combined with correct design, give these boats the strength to withstand the strains of high speed and the durability required to insure years of service.

The art of boat building—and it is an art—has been thoroughly mastered by this organization through more than forty years of experience with, and study of designs, material, appointments and construction.

How well this boat checks with government marine regulations and stands out in comparison with other craft, are covered in our new book, "The Lowdown on Runabouts." Mail the coupon today and get a free copy.



RACINE BOAT CORPORATION

620 Mead Street

Racine, Wis.

RACINE BOAT CORPORATION Please send me a copy of "The Lowdown on	-:- Runabout	 MEAD	STREET	-	:-	RACINE,	WIS.
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Used as Standard Equipment in SCRIPPS and Chrysler Power Plants

The Cross Reverse Gear was adopted by Scripps and Chrysler because it guarantees longer life, maximum power to the propeller, and an absolute neutral. It has a clutch like velvet—and the gears run in oil. There is a total absence of propeller drag. All parts are interchangeable and easily accessible. A dependable reverse gear with a high quality engine in a good boat is a combination that can't be beaten.

Other Cross Products

Cross Oil Coolers Cross Reduction Gears

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Cross Combination Reverse and Reduction

Gear Units

Cross Conversion Units

Write today for further details



The Baby Gar Jr. 26-ft. runabout, powered with Scripps F-6 and G-6 marine engines, fitted with Cross Reverse Gears. Speeds 30 to 40 miles per bour.

CROSS GEAR & ENGINE COMPANY
3260 Bellevue Avenue DETROIT, MICHIGAN, U. S. A.

Advertising Index will be found on page 170

COLUMBIAN RBRONZE PROPELLERS R



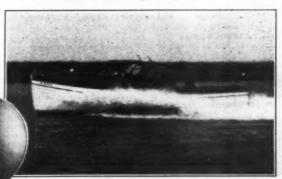
Cap'n Allswell says: For extra zip an' go, at 15 or 40 m.p.h., put a Columbian on your

SEA SKIFF

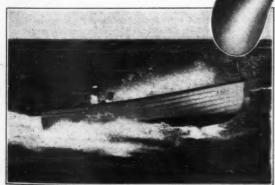
Send for new catalog, "Propellers in a Nut Shell"



SPORT SKIFFS—Built by the Sea Bright Dory Works, Long Branch, N. J. Speed, 15 miles per hour.



STOCK SKIFFS—Built by Freeport Point Boat Yards, Freeport, L. I. Speed, 30 miles per hour.



NEW STEP-SEASKIFFS—Built by G. T. Backus & Son, Fort Pierce, Florida. Speed, 25 miles per hour.



U. S. COAST GUARD SPEED SKIFFS—Built by Edward Fell Jardine Co., Atlantic City, N. J. Speed, 40 miles per hour.

CUTLESS

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RUBBER

COLUMBIAN BRONZE CORP., 208 North Main Street, Freeport, Long Island, N. Y.
NEW YORK CITY SALES: 44 THIRD AVENUE

SKEGS STRUTS RUDDERS



When writing to advertisers please mention MoToR BOATING, the National Magazine of Motor Boating, 119 West 40th Street, New York

GOZO: A PETITE SLOOP

(Continued from page 41)

to bore them out at a later time.

The frames for this little boat are all steam bent, and in order to bend these properly, a steam box will be necessary. This accessory to the construction has been described several times previously, and it is generally known that it consists of a long tight box, to which a steam supply is piped, and in which the timbers to be bent are steamed for the required period of After they are removed from the steam box, they can be quickly secured in place and bent around the molds for the hull,

which will determine the shape.

MoToR BoatinG has published some excellent books of small boat designs and building instructions which amateur builders A circular describing these will be sent on will find useful. request. Any readers who plan to construct this boat can also secure blue print copies of the drawings to a scale of one inch to the foot at moderate cost. Write the Editor, MoToR Boat-

inG, 119 West 40th Street, New York, N. Y.

SPECIFICATIONS

Stem: To be of white oak, moulded as shown on the construction plan and sided as per offsets for rabbet line. These dimensions are given on the Offset Table. Lower edge of stem to be scarphed into keel as shown. Bolted to keel with 3/6 inch diameter bolts.

Keel: To be of white oak, molded as shown on construction plan, and sided as per offsets for rabbet line, to run from Sta-

tion No. 1 to stern post.

Deadwood: To be of oak or yellow pine, also mahogany may be used. Molding or depth to be taken from construction plan, shape at each section to be taken from full size lines. 3% inch

diameter bolts.

Stern Post: White oak, two inches thick, and about six inches wide, and about five feet three inches long. To have opening cut in for propeller. In way of propeller shaft the stern post is to be swelled out to a thickness of about three inches. This bossing is to be worked in fair and smooth. Upper part of stern post to be notched out to take the transom as shown.

Shaft Log: Of white oak, four inches by five inches by about eighteen inches long. To be bored for a three-quarter inch

diameter shaft.

Stern Knee: Of white oak, shaped as shown, to be about three inches thick. Fitted up against stern post and on top of shaft

Galvanized or bronze bolts.

Frames: Of white oak steam bent to shape, one inch by one inch, to be spaced nine inches center to center. Forward of station three and aft of station eight heels of frames are to be boxed Remainder to land on top of keel.

Planking: Of white cedar, to be in as long lengths as possible to finish three-quarters of an inch thick. Copper rivets or gal-

vanized nail fastening.

Clamp: Of yellow pine, in one length each side, one inch thick by three inches wide, forward ends of clamps to be notched into breasthook as shown on drawings. Bolted to frames and deck 1/4 inch bolts. beams.

Bilge Stringers: Of yellow pine, one on each side, one inch thick by two and one-half inches wide. In one length each stringer. Bolted to frames. ¼ inch bolts.

Floors: Of white oak, floors in way of keel bolts to be two inches thick. Other floors forward to be one inch thick. Floors to be about three inches high above top of keel.

Iron Keel: Cast iron, of about eight hundred and fifty pounds in weight. To be fastened through deadwood, keel and floors with three-quarter inch diameter keel bolts. Lower ends of bolts to be countersunk in iron keel, holes to be filled flush with cement, upper ends to be threaded and fitted with nut and washer so that bolts can be taken up.

Engine Beds: White oak, one and three-quarters inches thick, shaped as necessary for clearance of engine installed. To be notched out in way of floors. To be thoroughly bolted to floors. Deck Beams: Of white oak, sided one and one-quarter inches

and molded two inches, to be sawn to a crown or camber of three inches in six feet. Two heavy beams to be fitted in way of mast, to be molded the same but to be sided one and three-quarter inches. Beams to be placed on every frame. Fore and aft members in way of house and cockpit to be one and one-half inch siding, molded two inches, the beams in the way of these members to be notched into them as shown.

Cockpit Beams: Oak, sided one inch and molded one and threequarter inches, to be hung from deck beams with a vertical member on each beam. Vertical pieces to be of oak, sided one

inch and molded two and one-half inches.

The holes necessary for the keel bolts should also be provided Decking: Of pine or cypress, strips about three inches wide, for in the casting at this time, as it will be next to impossible laid straight with center line of boat, to be three-quarters of an inch thick. Fastened to deck beams with galvanized iron nails or brads. Deck to be covered with canvas, ten ounce, laid in thick paint or marine glue made for this purpose. Canvas to be carried down over side of hull and tacked. This to be covered with sheer moulding.

Cockpit Deck: Of pine, three-quarters of an inch thick, can be canvas covered or left bright and caulked if desired.

House Sides: Of pine if to be painted, or mahogany if finished bright, to be three-quarters of an inch thick, heights as given on lines at various stations. Coaming and sides of house in one piece. Coaming part to be set on deck, house portion to be carried down to the under side of the deck beams and side fastened into fore and aft member. Forward end of house to be the same as side. Two port lights to be fitted on each side and one in forward end. About four inches diameter. At intersection of house side and deck, the canvas on deck is to be turned up and covered with a strip abut three-eighths thick and an inch high. This will make a tight joint at this point.

House Beams: Oak, spaced as shown on construction plan. Sided three-quarters of an inch and molded one and one-quarter

inches. Crowned as shown.

House Top: Pine, one-half inch thick, to be covered with canvas.

Companionway: Of the slide type, to be built up with pine slide canvas covered, and mahogany runners. Slides to run the full length of the house.

Cockpit Sides: If painted to be pine or if finished bright to be Mahogany. To be tongue and groove staving, about one-half inch thick. At upper edge canvas from deck is to be turned down and covered with a half round moulding about an inch and one-quarter wide.

Flooring: Of pine three-quarters of an inch thick, to be fitted with hatches or loose flooring to get at bilge of boat.

Transoms: To be built up of pine, about three-quarter inch thick, inboard edge to be fitted with cushion rail to hold cushion on top.

Mast Step: Of oak, shaped as shown, about four inches thick, to be thoroughly bolted to keel. To have rabbet cut in to take heel of mast.

Gas Tanks: Of galvanized iron, cylindrical in shape, twelve inches in diameter and twenty inches long, two tanks, each tank having a capacity of eight gallons. Tanks to be hung from deck beams with iron straps. Fill pipes to be fitted right through deck and to be fitted to regular filling plates on deck.

Rudder: To be built up of oak, with galvanized or bronze bolts running through pieces to prevent warping. To be two inches thick at forward edge and to be tapered as thin as possible at aft edge. To be cut out as shown in way of propeller. To be hung on transom and stern post with regular rudder gudgeons, pintles can be fitted with bolts or with cotter pins to prevent rudder from jumping out. Oak tiller to be fitted on upper end as shown, to run through and be reinforced by oak cheek pieces.

Spars: Of spruce or Oregon pine. Sizes and diameters are

given on sail plan.

Sails: Of about four ounce canvas. To be made by a com-

petent sailmaker.

Rigging: To be of plough steel wire rope. Shrouds, upper one-quarter inch diameter. Shrouds, lower five-sixteenths inch diameter. Jibstay, five-sixteenths inch diameter. Runners, quarter inch diameter. Main halyard, manila rope one-half inch diameter. Jib yalyard, manila rope, one-half inch diameter. Main sheet, manila rope, five-eighths diameter. Jib sheet, manila rope, one-half inch diameter. Runners, manila rope, one-half inch

Fittings: Travellers, fitted with bolt and nut on under side, to run through deck, mainsheet traveller, eighteen inches wide, high enough to give clearance for tiller. Jib sheet traveller, 18 inches wide, three-eighths diameter. Cleats: Mainsheet; can be of bronze or wood size suitable for mainsheet; one single, front of bronze or wood size stituable for mainsheet; one single, from shackle, with becket. One single, front shackle. One single swivel deck plate with block. Jibsheet: One single front shackle with becket. One single front shackle. Two single swivel deck plate with block. Main halyard: One No. 1 Marconi halyard block on sail headboard. One three inch diameter sheave fitted in mast head. Jib halyard: One single side shackle with becket. One single front shackle.

Sail slides and track, five-eighths inch size to be fitted to mast and boom. shackle, with becket.

mast and boom.

(Continued on page 154)

Who

Varied Problems but the Same Solution

Boats of widely different types—engines of various horsepowers, cubic inch displacement and speeds, are represented in the products of the makers listed at the right. Yet all these builders have standardized on Willard Batteries.

When a boat or engine builder equips with Willard Threaded Rubber Batteries, he is giving his users the greatest battery value obtainable today.

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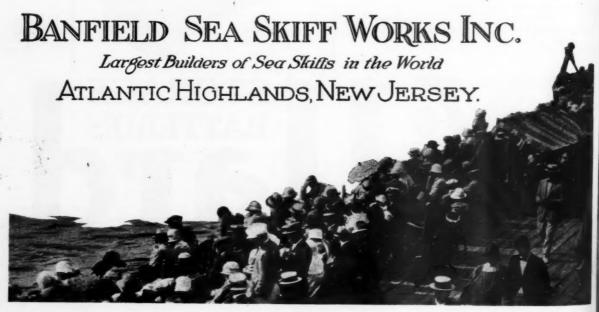


Banfield — A New Word for Seaworthy

WHY are seasoned yachtsmen the world over turning towards Banfield Sea Skiffs in such large numbers? The answer is they are finding qualities in these famous boats that cannot be duplicated in any other craft. To own one puts you immediately in a distinctive class.

The smart, rugged, speedy lines of these ing to the oft used word, seaworthiness.

famous boats have more admirers than any other boats built today. It is human to admire the unusual, that is what Banfield Sea Skiffs accomplish. There is no condition or emergency on the high seas that cannot be safely met. They have been pronounced to be the "greatest sea boats of our times." Banfield puts a new meaning to the oft used word, seaworthiness.



Advertising Index will be found on page 170



LIST of the boat makers who are now using Kermath engines as standard equipment would serve as almost a complete list of the leaders in the boat building field.

For, one after another, makers of every type of craft have come to recognize and appreciate the reliability and the low cost of Kermath performance.

As a result 80% of the boat builders in the world now use Kermaths as standard equipment.

From small 3 H. P. Kermaths for open boats to the powerful 150 H. P. for the most magnificent cruisers, from work boats to costly runabouts, Kermath motors run the gamut of them all, and in each class, in each type of installation, are giving that superlative degree of performance that has made Kermath the "buy" word of the industry.

Write for illustrated catalog or any other desired information.





3 to 150 H.P. \$135 to \$2300 KERMATH MANUFACTURING CO.

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"THE DAWN TWIN SCREW 45 FOOTER"

Duplicates Under Construction for

H. S. BALTZ W. CORNELL BLANDING L. HOWLAND BROWN

JULIAN FAIRCHILD P. B. PHILLIP DR. B. F. SCHULTE

Dawn for Quality

The association of quality with the Dawn "38" and 45 foot Cruisers is not a chance association. It is justly deserved. Yachtsmen familiar with Dawn Cruisers recognize in them this inherent quality . . . place absolute dependence on Dawn Performance . . . expect the superior comforts which intelligent planning affords . . . thoroughly approve the clean cut appearance and fine lines so apparent in all Dawn Cruisers. These men have not let a slight difference in price stand in the way of complete owner satisfaction . . . They own a Dawn Cruiser.

> Dawn Cruisers standardize on six cylinder Kermath motors because of their marked reliability, their economical upkeep, operation and outstanding performance.

DAWN BOAT CORPORATION CLASON POINT, NEW YORK CITY

DAWN CRUISERS

Gozo: A Petite Sloop (Continued from page 150)

Cleats: One eight inch hollow type cleats of bronze, or one eight inch transverse malleable iron cleat. Six five and one half inch cleats. Two of these to be fastened on mast for halyards. One four and one-half inch combination chock fitted on forward deck for anchor line. One swivel screw hook and eye gooseneck for boom. One regular boom band with traveller. Seven four-inch shoulder cleats to be fitted on mast for rigging. Five three-eighth-inch diameter bronze turnbuckles. One jib sheet lip leader. One bronze stuffing box for three-quarter inch shaft. One bronze stern bearing for three-quarter inch shaft. One bronze propeller suitable for engine.

Finishing: The hull to be properly planed and sandpapered fair and smooth before any paint is applied. All seams to be properly caulked and puttied. Bottom: One coat of red lead and two coats of a non-fouling bottom paint. Topsides: One coat of primer, and two coats of white lead yacht paint. Decks: Canvas to be properly filled and given at least three coats of deck paint. Bright work: All varnish work to be filled and given three coats of a good spar varnish, each coat to be rubbed down. Spars: Three coats of spar varnish.

Hints on Locking Through

(Continued from page 48)
along in the water for a time to wash off the accumulated dirt. keep as far away from the opening gate as possible as there a current that pulls you towards this gate and sometimes it is quite strong. Keep your engine running so that in case of a move it under power and thus relieve the strain on those who are trying to hold it in place. Some locks are well equipped, but you get into all kinds so it is best to take no chances.

If there are enough on board, have one of the party go ashore and speak to the lock tender as soon as possible so that you will not be dropped or raised too quickly. You may pass through that same lock again so it is better to keep on good

terms with him.

Many locks have bridges across them that are not readily movable or at least they might not move them for you so that all masts or other high parts should be arranged so that they can be easily lowered. Experience will teach you how best to control your boat in the lock and more surely than just by reading about it. Try it out.

L. R. K., Philadelphia, Pa.

Canal Permits Are Needed

NE of the first things to do before starting on the cruise is to get the proper permit, if this is necessary, to navigate the canal system that one contemplates using. This applies particularly to the New York State Canal system. This will save considerable delay while actually on the trip. At the same time it is well to get all available details of the canal as the same time it is well to get all available details of the canal as to lift of locks, number, distance apart, etc. Charts of the canal are interesting but not absolutely necessary.

A good loud horn or whistle is mighty handy to get the attention of bridge tenders and lock keepers and this should be tuned to a pitch and tone as different as possible from the average automobile horn. Otherwise you can blame yourself and not the lock and bridge tenders for most of your unnecessary delay.

While one can go through locks particularly if alone, without

putting out lines, yet generally regulations call for this and it is well to be prepared in advance, particularly if cruising single handed.

Generally one's lines serve as mooring lines. As you cannot always be sure which side you moor to it is well to be prepared to moor to either side. My practice is to middle my forward line and secure to the forward sampson post, tie a bowline in either end big enough to go over the cleats or mooring posts, the lead the ends around the boat and into the cockpit of either side. If the lock is deep the lock tender will let down a line with a hook on the end of it to you and you can hook on the loop which is on the side you moor to without even getting off of your cockpit. If you have enough line at the stern you can do the same trick there, leading into the cockpit and hook on both lines at once.

It is well to have two sets of fenders while passing through a canal so that one doesn't have to change these from side to side at the last moment. Anyhow you are sure to loose or damage one or more fenders during a season so it is well to have two

sets on hand anyway.

When the water is rising one can easily take in first one line.

When the water is rising one can easily take in first one line. and then the other without too much slack accumulating ever if single handed. If there are two of you each should tend a

(Continued on page 158)

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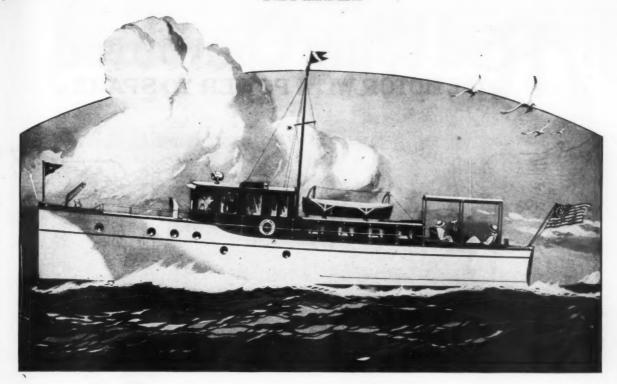
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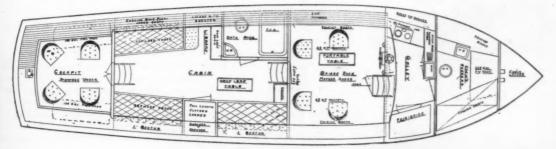


Only 2 More

Famous Vinyard Fifty-Footers Will Be Delivered This Season

N September first the next two Vinyard Fifty-Foot, Twin-Screw Cruisers to be built this season will be ready for delivery. Will one of them be yours? If you act now you can be among the five fortunate yachting lovers to own the "Greatest Vinyard Cruiser Ever Built."

Yachtsmen who have heretofore thought a boat of this size, quality and completeness beyond their means will be surprised in knowing how little it costs compared with other craft of equal size and even smaller. With a speed of 17 miles an hour furnished by two 65 H.P. Kermaths, the Vinyard Fifty-Footer will take you anywhere, in rough seas as well as calm water, quickly, safely and in comfort. The equipment and accommodations are of the most modern and complete type, including a Frigidaire Electric Refrigerator and Delco Lighting Plant.



ARRANGEMENT PLAN

Length O.A., 50 ft. Draft, 3 ft. 6 in. Beam, 12 ft.

The design is arranged so that you can go through and to any part of the interior without going on deck.

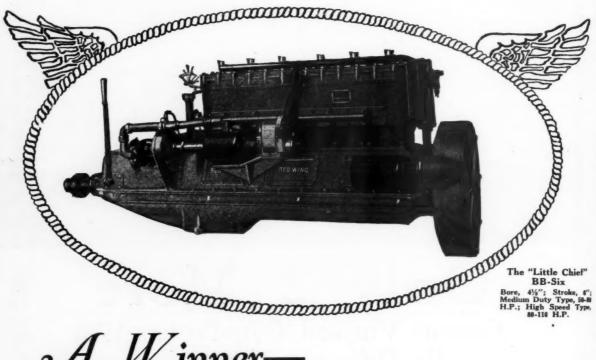
VINYARD SHIPBUILDING COMPANY

Designers and Builders of Yachts and Cruisers of the Highest Class

MILFORD, DELAWARE, U. S. A.

When writing to advertisers please mention MoToR Boating, the National Magazine of Motor Boating, 110 West 40th Street, New York

OTOR WITH POWER TO SPA



A Winner

Little Chief BB-Six



The famous Mathews "38" ideal performer with the BB-SIX THORO-BRED, medium duty type.



A Florida passenger craft. Speedy and smooth running with her THOROBRED engine.

S INCE its first appearance the Red Wing Little Chief BB-Six has been a constant winner of approval from marine engine experts and long experienced boat owners everywhere. With a piston displacement of 573 cubic inches this light weight six gives an abundant flow of vibrationless power for all types of motor craft where the smoothness and efficiency of a fine six are wanted.

The Little Chief BB-Six embodies all the reliability and endurance of the famous Red Wing THOROBREDS. It is designed along the most advanced ideas for compactness and light weight without sacrificing strength. Among the many features which have won for the Little Chief BB-Six a position of prominence as a high quality power plant are a seven-bearing crankshaft of 2 9/16" diameter, complete pressure feed oiling system with patented submerged type Red Wing oil pump, double ignition, 2-unit 12-volt starter, oil Pur-O-lator, and built-in Paragon reverse gear.

Write today for catalog describing the full line of THOROBREDS—12 sizes, 7 to 150 H.P.

RED WING MOTOR CO. DEPT. RED WING, MINN., U. S. A.

Advertising Index will be found on page 170



For faithful performance

Few products have stood up as successfully as Auto-Lite under millions of practical, daily service tests—year in and year out.

Today the prospective boat purchaser, forms his judgment of equipment he does not know, by the presence of an Auto-Lite System—whose record he does know... The Electric Auto-Lite Co... Office & Works: Toledo, O

Also Makers of DéJon

Auto-Lite



4 Cyl. 12-15 H.P. "Special"

IMMEDIATE DELIVERY!

M ORE Niagaras are being sold each year. At the end of the biggest season we ever had (1926) we determined this year to assure our customers exceptional service and immediate delivery at the height of the season by increasing our production. Engines reserved for immediate and telegraph orders-express or fast freight.

THE 4 CYL. 12-15 H.P. NIAGARA

"SPECIAL"

is a beautiful little engine. The last word in up-todate design. It will drive your boat from 1½-2 m.p.h.
faster than any engine of its size. More important
still—It is thoroughly reliable—always ready and easy
to start. The smoothest and quietest of all 4 cyl.
marine engines marine engines.

Boat Owners! **Boat Builders** And Dealers!

Write for details. (State size of boat.)

NIAGARA MOTORS CORPORATION DUNKIRK Box 888 **NEW YORK**

MARINOBILE

The FORD Powered Motor Boat

POWERED with a fully marine-converted Ford motor, it gives you the same advantages of economical operation and low upkeep that the world's most popular car gives on land. Our speed motor model is guaranteed to give better than 25 miles per hour.

Write for catalogue.

JBULER

SHOWROOM AND SERVICE STATION:

470 PASSAIC AVENUE

KEARNY, N. J.

NEW MODEL CADYFOUR AN ENGINE WITH UNIVERSAL SERVICE



MODEL EUMSA C. N. CADY CO., 304 G. Center St., Canastota, N. Y.

Canal Permits Are Needed

(Continued from page 154)

Getting out of the canal is a simple problem in casting off.

Don't go out of the lock however as if the devil was after you.

It is as well to get information from the lock tender that might be of use. The rise of the next lock, which side you generally moor to, in fact any information that may be of use to you that you haven't already collected. If there is more than yourself in the lock and the other boat goes out first let him get well clear of the gate before you cast off. One thing it is well to ask about is the boats ahead of you on the same level how far ahead and the chances of going through with them at the next

ahead and the chances of going through with them at the next lock. You will find if you are civil and decent the lock tenders will meet you more than half way.

As to speed in the canals. These regulations are made to save the banks and buoys from damage, it is well to frankly ask the lock tenders about them, and as to whether if your boat doesn't make any great amount of wash if you can exceed the regular limit. Anyway don't think you can fool the lock tender of the next lock as the locks are convected by telephone. next lock as the locks are connected by telephone.

It is well to stop well away from a lock when approaching until signaled by the lock tender in order to give any boats that may be going in the opposite way a chance to get clear of the narrow part of the entrance before passing you. This particularly applies to tows of barges which sometimes become unmanageable.

In going from a higher to a lower level one can often put out one's own line by jumping ashore. However as this cannot always be done and a line is not easy to catch. A heaving line made of stout cord or fish line may be used. If we tie a block of wood to one end of this it can be heaved ashore and will stay there until picked up and the end can be secured to whichever lines are to be used.

If working single handed in going from a higher to a lower level allow considerable slack at one end, pay out at the other and when this is almost used up allow some extra and then go to the other line, by this process one can easily tend both lines. Anyhow don't forget and get hung up. In most cases one line

for a small cruiser is enough.

The lock tender will throw your line down to you and will generally land it on your deck without even getting any part of

As a matter of fact there is very little to canal navigation for the small cruiser and even without these hints common sense combined with courtesy and a genuine consideration for the rights and feelings of others will get one through O. K.
H. H. B., Red Bank, N. J.

Removing the Propeller

(Continued from page 47)

propeller hub with a blow torch will help to loosen it propener hub with a blow torch will help to loosen it.

This rig can be simplified or improved as desired. Instead of the three plates forming the triangle the bolts can be bent so as to hook behind the hub and a heavy piece of hard wood substituted for the square plate. Bind the bolts tightly to the hub with several turns of strong wire and use washers on bolts where the nuts bear on the wood. Where space permits, three pieces of hard wood could be used against the hub instead of the color. Now we can work a suffer that will do the work. the plates. Now we can make a puller that will do the work without the aid of a blacksmith at all. We use three hard wood blocks behind the hub of the propeller, and a solid block against the shaft end and three straight bolts with washers at both ends

the shaft end and three straight bolts with washers at both ends to do the work. To more closely approach the manufactured puller, get the square plate an inch thick and have it drilled and tapped for a ½ inch cap screw.

When you make and use any rig for pulling the propeller, use your head at the same time and you can't get stuck or do any damage. As soon as a taper bored propeller moves it is loose and can be easily lifted off. A straight bore will hold all the way off and it will be necessary to use the puller until the propeller is off the shaft. This same type puller can be used for removing a fly wheel or a flange with equal results.

W. B. M., Newburgh, N. Y.

Dart Boats at Chicago Show

Indian Lake Boat Company, Incorporated, of Lima, Ohio, Indian Lake Boat Company, Incorporated, of Lima, Ohio, will have its line of boats on permanent display at the Chicago Motor Boat Mart at 1725 Diversy Boulevard. In this display are shown the 10 passenger Dart Runabout, length 26 feet; the 8 passenger Dart Junior, length 22½ feet; the Dart Outboard and the Lockwood Skimmer.

A. M. Deering, well known in boat circles, has been appointed distributor for the Chicago territory and will be in charge of and maintain the display permanently in Chicago. The Dart display, occupies a prominent location on the first floor.

first floor.



Takes Hold When You Let Go

You are out on the water with your Motor—dashing straight for the fishing beds. You want to light your pipe or arrange your tackle, or try your luck on the way out. What do you do? With a Lockwood on your boat, just let go of the steering handle and an invisible hand instantly takes hold. No swerving of the Motor—no danger of sudden reverse. You relax—and rest. You can't appreciate just how much this one exclusive Lockwood feature means to your comfort. You relax—and rest. You can't appreciate just how much this one exclusive Lockwood feature means to your comfort and pleasure until you have tried it—and you get this priceless feature, without a cent of extra cost, on every Lockwood Motor.



The IDEAL SIZE—with 15 new features. A Motor just right in weight, power and speed. Remarkably easy to start, and a hard Motor to overtake. Ask the fellow that has tried it. Covered with glory in countless races, holder of Class B Championships for 1925 and 1926—unbeaten in 1927—yet underpriced \$15 to \$20. Besure to get a demonstration of the Lockwood Twin with the Exclusive Lockwood Pilot before you decide on any Motor for your boat.

Write for Free Catalog Folder today.

Lockwood Motor Co.

OCKWOOD MOTOR CO. 718, Jackson St., Jackson, Mich. lentlemen: Send me Free Catalog Folder describing the 1927 cockwood Twin and its 15 New Features—and name of nearest



While-You Arrange



While-You Cast



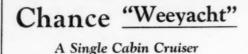
While-You Troll



Perfect Safety for All the Family

New World's Record 24.826 Miles Per Hour

e with the 1827 Lockwood Twin and a wood Skimmer at Houston, Texas, on 124th. July 4th is a "Lockwood Holi-"Dealers are giving special demonstra-the week preceding. Get your Lockwood "get into the races and win!



of Great Value

READY FOR DELIVERY NOW

Built in 36, 38, 40 foot. A trim, graceful, bridge deck cruiser with accommodations of a much larger boat. Model shown below is single cabin, larger boat. Model shown below is single cabin, sleeping four people. Also available in double cabin model, sleeping four people forward and three people aft. Separate lavatories. Fully enclosed galley on both models. Perfect vision to all points from bridge, positive and trouble proof steering equipment. Extremely strongly built seaworthy hull, economically driven and capable of great speed. Write for blueprints, specifications brices, etc. prices, etc.



This 26-foot SEMI V-Bottom Runabout has 5'8" beam and draws 1'8". No better boat of her type has been designed. Choice of power plants and a price that will be a revelation to you.



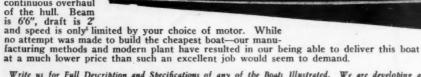


20' Round Bottom Raised 20' Round Bottom Raised Deck Runabout. Beam 5' and will make 12 m. p. h. and upward, according to power plant-installed. Automobile control, large fuel capacity and built in accordance with the rigid specifications that characterize all CHANCE boats. No finer boat of her class No finer boat of her class is afloat. And priced far below your expectations.

26-FOOT ALL MAHOGANY V-BOTTOM

High Speed Runabout

This is without doubt one of the finest runabouts ever built. Every effort was made to build a staunch boat that will deliver years of pleasure without continuous overhaul



Write us for Full Description and Specifications of any of the Boats Illustrated. We are developing a 75-foot Cruiser. Ask about it.

CHANCE MARINE CONSTRUCTION COMPANY

ANNAPOLIS - MARYLAND

Monel Metal Shafts Standard on 150 H.P. "Chris-Craft"



First: Tests! Then: Adoption of Monel Metal—that's how "Chris-Craft" builders chose their shaft material

HEN a certain make of boats has a well-established reputation for dependability as well as for speed, there must be an underlying reason for that reputation. Chris Smith & Sons Boat Co., the builders, affirm that no small part of "Chris-Craft's" dependability is due to Monel Metal shafts.

To quote the exact words of Mr. Jay W. Smith, General Manager of this company:

"We have decided on Monel Metal for

"1—These shafts have proven very satisfactory and very successful for salt water use, showing no signs of corrosion or other trouble due to contact with salt water.

"2—We find these shafts are very much more rigid than other types we have been using. In fact, during last season's use, we haven't had a call for replacement on Mone Metal shafts due to any cause whatsoever, and we have had several wheels back from

owners where the blades were wrapped right around the hub.

"3—We find this material runs very successfully in our stuffing box and strut bearing.

"4—We are very well pleased with the splendid cooperation and service which we have received from your company, and we do not besitate to recommend Monel Metal propeller shafts to those who want the best."

That's the plain-fact story of Monel Metal's record as shafting. It is typical of the conclusions many boat builders and boat owners have

formed concerning Monel Metal—conclusions that should lead you to specify Monel Metal the next time you overhaul, or for your new boat. For further information, ask your builder or machinist or write direct to us.

THE same properties that make Monel Metal so valuable for propeller shafts, also make it the ideal metal for many other marine parts and fittings. Monel Metal is available in the following shapes and forms: sheets-tubing-strip-wire rope—wood screws-nails-rivets—bolts and nuts-lag screws-etc.

Have your next boat put together with Monel Metal wood screws.

For detailed information about Monel Metal in any form, write to The International Nickel Company.

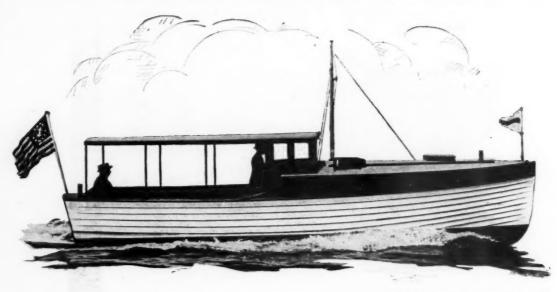
Monel Metal shafts are equally appropriate for use with bearings of babbitt, bearing-bronze, or Goodrich Cutless Rubber bearings.



metal Metal

THE INTERNATIONAL NICKEL COMPANY (INC.), 67 WALL STREET, NEW YORK CITY

W-S-M DRIVEN



This thirty-two-foot cruiser built by the W. F. Ruddock Boat & Yacht Works, Inc., Greenwich, Conn., is powered with a 60 H.P. W-S-M, which drives it at a speed of 13 miles per bour.

Power That's Always Reliable

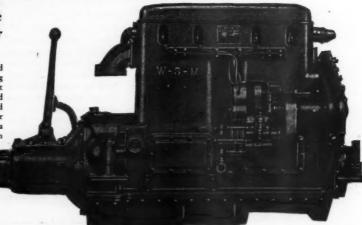
WHERE service demands the utmost in dependability and ruggedness you will find W-S-M marine engines are a logical choice. Their ability to give long and uninterrupted service under the most grueling conditions, their quiet operation and freedom from vibration are the results of superior design and more thorough workmanship. When you power your boat with a W-S-M engine your boating joy will be complete because the W-S-M is always reliable.

Only the W-S-M Marine Engine Gives You All of These Superior and Advanced Features.

Removable cylinder walls which can be renewed without moving the engine from the bed. Sliding type of reverse gear, the quietest, simplest, most durable and easiest operated reverse gear ever used in a boat—works like an automobile gear shift and gives 80% of forward speed in reverse. Cylinder block and crank case are cast integral, making a rigid backbone. Overhead valves with all mechanism in water-cooled detachable cylinder

in water-cooled detachable cylinder head. Pressure lubrication direct to every wearing surface without exposed piping. Swiveled three-point

> There's a W-S-M Suitable for Your Boat— Let Us Tell You About It



HIGH SPEED 48 to 60 H.P. 1000 to 1400 R.P.M. Weight, 1350 lbs.

MEDIUM DUTY 28 to 45 H.P. 600 to 900 R.P.M. Weight, 1450 lbs.

THE SANDERSON-CYCLONE DRILL CO.

ORRVILLE, OHIO

Advertising Index will be found on page 170



A FAST, Standardized CRUISER with UNUSUAL accommodations

THE much desired combination of speed and complete cruising accommodations for a sizable party is worked out to an extraordinary nicety in this new Matthews 46-footer.

In the past speed meant the sacrifice of the most desirable features of a cruiser unless the boat were a very large one and, conversely, if all desirable accommodations were to be had, en speed must be sacrificed.

Now both are to be had in one. The Matthews 46-foot Cruiser, a standardized boat, contains complete accommodations for nine people—individual beds, toilets, ample galley facilities and all.

There is a choice of three 150 horsepower engines—all of the better makes and all providing the boat with a speed of 16 miles per hour and more.

The price for this new Matthews Cruiser reflects, again, the opportunities afforded the buyer through the producer using progressive building methods and standardization on parts and materials.

The Matthews 46-foot Cruiser, a standardized boat, is the big sister of the famous Matthews "38" and Matthews "28" Stock Cruisers. Descriptive literature on all or any o fthese will be sent upon your request.

THE MATTHEWS COMPANY

Designers and Builders of Boats of Distinction—Since 1890 PORT CLINTON

OHIO

"There's a Matthews STOCK Cruiser for Every Cruising Requirement"

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Fittings for "Pirate

ET us supply you the fittings for "Pirate." Build the boat from the plans in this issue of MoToR BoatinG. Or perhaps you would prefer to construct an old ship model. A perfect 28" replica of the STAR class sail boat. A miniature power boat with a real steam or spring motor. Or any one of the many other designs we have developed for model makers.

Get Your Boy One (for Yourself)

We have been headquarters for model makers for 22 years. Our miniature yacht fittings, small scale models, engines, boilers and spring motors are authentic in design, accurately made, and are TOYS that are more than just TOYS. Grown-up boys enjoy them as much as the youngsters.

Spring Motors—run approximately 5 minutes. Lever starts and stops. For power boats up to

stops.
30 in.
Steam Engines—complete or knockdown. Boilers, Burners and Steam Fittings in all sizes.
Power Boots—complete construction sets. Several sizes and

tion sets, types.

Sail Yachts—construction sets or finished, ready to sail.

Fittings—Propellers, Cleats, Airports, Anchors, Ventilators, Rail Stanchions, Davits, Capstans, Binnacles, Rigging Line, Sail Cloth, etc. Stanchious, Davits, Capstans, Binnacles, Rigging Line, Sail Cloth, etc.

Hulla—selected white pine, made to scale, in the rough, partly finished or completely finished.



STAR Construction Set

especially makers.

Pirate, a Model Sloop

(Continued from page 45)

racing models. It should be made very light, not exceeding 34 inch diameter in the center, and tapering down to about 3-16

inches at each end.

While the drawing shows the mast running through the deck, and stepped on one of the water line lifts, a better plan would be to install a brass mast tube, which will help insure a watertight hull, and form a more secure anchorage

The best material for the rigging has been found to be graded linen fish line, set up with hooks and toggles or bowsies.

graded linen fish line, set up with hooks and toggles or bowsies. Such fitting as stay plates spreaders, mast tube, steering gear, goose necks, etc., are possibly too difficult or complex to be made by the average amateur boat builders, and can be purchased to good advantage with better results. Although if a boy is skillful, he can improvise many of these fittings readily. Sails for this sloop should be cut to the dimensions called for on the sail plan, and a good grade of balloon cloth should be used. In cutting make an allowance for hems, which should not exceed one-quarter inch. The cloth should be cut so that the outer edge will be on the selvage run of the material, it being understood that the outer edge of the sail is called the leach. The forward edges of the sails is called the luff. The leach. The forward edges of the sails is called the luff. The luff of the jib is carried by the jib forestay, and may be laced or secured to it by number O DeLong dress hooks. The luff of the mainsail may be secured to the mast and beam by lacing, although some prefer rings on the mast and lacing to the boom. A newer and perhaps better way is to run a wire down the after side of the mast, and on the upper side of the boom secured to the wood by small staples every few inches. The sail can be secured to the wire with DeLong dress hooks in the same manner as called for on the jib.

Building a Short Wave Transmitter (Continued from page 146)

to indicate resonance, this should also be removed when the set is once right. It is also a good plan to keep the set away from the receiver, at least two feet and more if possible. In wiring it up, also remember to keep all wires as short and as direct as possible, particularly the grid and plate wires. It may be wired with the usual round of square bus-bar, but in any event take plants of time. For the wires which grees to the trace of the

plenty of time. For the wire which goes to the tap on L-l. use stranded copper, rubber covered.

Now go ahead and secure your license, practice the code and then, when the warm weather starts in again you'll be all set to keep in touch with the thousands of amateur transmitters close the shore. along the shore.

You Need This Book

This book, "Scale Models," is inval-uable to anyone interested in Model Boats and Ship Models. Useful information on history of steam gines, nautical knots, hitches hints splices. inting on painting and finishing, etc.

25 c day fo copy



HEADQUARTER FOR MODEL MAKERS FOR 22 YEARS 415 MADISON AVE. Dept. M.B. **NEW YORK**

Gentlemen:

Please send me at once: (check (a) "Scale Models"—2\$c enclowhich) (b) STAR Set—\$8.00 enclosed

("Scale Models" sent free when you order a STAR boat)

Duplex Oil for Marine Engines (Continued from page 31)

Commander of the United States Navy and a member of the American Society of Naval Engineers. Also, he comes of an old yachting family, his uncle, F. B. Hower of Buffalo—founder of the Enterprise Oil Company, manufacturers of Duplex—having been Commodore of the Buffalo Yacht Club continuously from 1890 to 1900.

from 1890 to 1900.

"There isn't any secret about it" said Mr. Hower in one part of our talk. "Others could do what our organization has done, only they don't. Trouble with most oil companies is that they know oil—that is, some do—but they don't know engines. The proof of it is found on every hand. Please get this—oils for marine engines must be designed for marine use. There aren't any two ways about it. Automobile oils can't be expected to lubricate marine engines properly. Not even converted automobile engines—not by a long shot. The service is entirely different and any student of engines knows it if he thinks about the ent, and any student of engines knows it if he thinks about the matter." Hower was getting warmed up to his subject by this time, and with the interjection of a question or two I saw I was getting what I had come to Buffalo to find out.

"Please tell me just what you mean, Commander, by the difference in service," I asked. "I drive a car, of course, as well

ference in service," I asked. "I drive a car, of course, as well as a boat. Both engines look a good deal the same in general. They both use gasoline and have about the same kind of ignition. They both have starters and—"
"Yes, and that's about as far as the comparison goes," interrupted Hower. "You might add that both are made of the same kind of materials, but that's all. We are talking about the

kind of service each gives.

"Compared to a boat engine, an automobile power plant has a life of ease and loafing. Not one percent of its running time is under full load. Just think that over. Only on a hill, with a full load, on high gear and with wide open throttle, is the automobile engine called on for maximum power. And then (Continued on page 166)





Worldwide Demand in less than a year!

NEVER before has any marine motor been accorded the reception given the Hallett Baby Marine Engine.

Less than a year old, it is known today in every quarter of the globe—wherever boats are found.

A revolutionary departure in marine engine design—combining the features of multi-cylinders, small size, compactness and extreme light weight. A marine engine that is practically vibrationless!

Ideal for yacht tenders and small boats, and for auxiliary work in larger boats.

Specifications: 4-cylinder engine, 4-cycle, 2 7/16 Bore, 2¾ Stroke, 8-10 H. P., Timken Roller Bearings, Link Belt Silent Chain. Made in 2 models—Direct and Reduction Drive Types.

DISTRIBUTORS

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HALLETT MANUFACTURING CO., Box 192, Hyde Park Station, Los Angeles, Cal.

Fittings for "Pirate

ET us supply you the fittings for "Pirate." Build the boat from the plans in this issue of MoToR BoatinG. Or perhaps you would prefer to construct an old ship model. A perfect 28" replica of the STAR class sail boat. A miniature power boat with a real steam or spring motor. Or any one of the many other designs we have developed for model makers.

Get Your Boy One (for Yourself)

We have been headquarters for model makers for 22 years. Our miniature yacht fittings, small scale models, engines, boilers and spring motors are authentic in design, accurately made, and are TOYS that are more than just TOYS. Grown-up enjoy them as much as the youngsters.

Spring Motors—run approximately 5 minutes. Lever starts and stops. For power boats up to 30 in.

30 in.
Steam Engines—complete or knock-down. Boilers, Burners and Steam Fittings in all sizes.
Power Beats—complete construction sets. Several sizes and types.

tion sets. Several sizes and types.

Sail Yachts—construction sets or finished, ready to sail.

Fittings—Propellers, Cleats, Airports, Anchors, Ventilators, Rail Stanchions, Dayits, Capstans, Binnacles, Rigging Line, Sail Cloth, etc.

Hulls—selected white pine, made to scale, in the rough, partly finished or completely finished.



STAR Construction Set

Pirate, a Model Sloop

(Continued from page 45) racing models. It should be made very light, not exceeding 14 inch diameter in the center, and tapering down to about 3-16

inches at each end. While the drawing shows the mast running through the

deck, and stepped on one of the water line lifts, a better plan would be to install a brass mast tube, which will help insure a watertight hull, and form a more secure anchorage for the

The best material for the rigging has been found to be graded linen fish line, set up with hooks and toggles or bowsies graded linen fish line, set up with hooks and toggies or bowsies. Such fitting as stay plates spreaders, mast tube, steering gear, goose necks, etc., are possibly too difficult or complex to be made by the average amateur boat builders, and can be purchased to good advantage with better results. Although if a

made by the average amateur boat builders, and can be purchased to good advantage with better results. Although if a boy is skillful, he can improvise many of these fittings readily. Sails for this sloop should be cut to the dimensions called for on the sail plan, and a good grade of balloon cloth should be used. In cutting make an allowance for hems, which should not exceed one-quarter inch. The cloth should be cut so that the outer edge will be on the selvage run of the material, it being undergood that the outer edge will be on the selvage run of the material, it being understood that the outer edge of the sail is called the leach. The forward edges of the sails is called the luff. The leach. The forward edges of the sails is called the luft. The luft of the jib is carried by the jib forestay, and may be laced or secured to it by number O DeLong dress hooks. The luft of the mainsail may be secured to the mast and beam by lacing, although some prefer rings on the mast and lacing to the boom. A newer and perhaps better way is to run a wire down the after side of the mast, and on the upper side of the boom secured to the wood by small staples every few inches. The sail can be secured to the wire with DeLong dress hooks in the same manner as called for on the jib.

Building a Short Wave Transmitter (Continued from page 146)

to indicate resonance, this should also be removed when the set is once right. It is also a good plan to keep the set away from the receiver, at least two feet and more if possible. In wiring the receiver, at least two feet and more if possible. In wiring it up, also remember to keep all wires as short and as direct as possible, particularly the grid and plate wires. It may be wired with the usual round of square bus-bar, but in any event take plenty of time. For the wire which goes to the tap on L-l. use stranded copper, rubber covered.

Now go ahead and secure your license, practice the code and then, when the warm weather starts in again you'll be all set to keep in touch with the thousands of amateur transmitters along the shore.

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Duplex Oil for Marine Engines

(Continued from page 31)

Commander of the United States Navy and a member of the American Society of Naval Engineers. Also, he comes of an old yachting family, his uncle, F. B. Hower of Buffalo—founder of the Enterprise Oil Company, manufacturers of Duplex—having been Commodore of the Buffalo Yacht Club continuously from 1890 to 1900.

"There isn't any secret about it" said Mr. Hower in one sect

"There isn't any secret about it" said Mr. Hower in one part of our talk. "Others could do what our organization has done, only they don't. Trouble with most oil companies is that they know oil—that is, some do—but they don't know engines. The proof of it is found on every hand. Please get this—oils for marine engines must be designed for marine use. There aren't any two ways about it. Automobile oils can't be expected to marine engines must be designed for marine use. There aren't any two ways about it. Automobile oils can't be expected to lubricate marine engines properly. Not even converted automobile engines—not by a long shot. The service is entirely different, and any student of engines knows it if he thinks about the matter. ent, and any student of engines knows it if he thinks about the matter." Hower was getting warmed up to his subject by this time, and with the interjection of a question or two I saw I was getting what I had come to Buffalo to find out.

"Please tell me just what you mean, Commander, by the difference in service," I asked. "I drive a car, of course, as well as a boat. Both engines look a good deal the same in general.

They both use gasoline and have about the same kind of ignition. They both have starters and—"

"Yes, and that's about as far as the comparison goes," inter-rupted Hower. "You might add that both are made of the same kind of materials, but that's all. We are talking about the

"Compared to a boat engine, an automobile power plant has a life of ease and loafing. Not one percent of its running time is under full load. Just think that over. Only on a hill, with a full load, on high gear and with wide open throttle, is the automobile engine called on for maximum power. And then kind of service each gives. (Continued on page 166)



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Duplex Oil for Marine Engines

Continued from page 164)

listen to it pound! The rest of the time it delivers only from ten to thirty or forty per cent of its possible power.

"Now take a marine engine. What does the boat owner do? Minute he gets away from the dock and is well under way he throws his throttle wide open—full load, maximum power output; piston, wrist pins, rods and crankshaft all straining and working at their limit. Running up a steep hill all day long, wide open throttle, full load. Hell's bells! A marine engine works, an automobile engine loafs. If marine engine manufacturers built their engines as do automobile manufacturers, they wouldn't stand up two seasons. Couldn't. Ask them. That's why a marine engine costs real money. It isn't a question of quantity production. Don't fool vourself. Ask Packard or Chrysler—they build marine engines, too. Think you could buy one for the price of a motor car engine? No, because they cost more—couldn't be otherwise. They are designed for marine service. marine service.

"Same damn thing with oil. We have made automobile oil-for Pierce-Arrow—for twenty-six years. We know automobile engines. Ought to. Work with the Pierce-Arrow engineers right engines. along. Know automobile problems. Not the same as marine prob-lems. Have I made that clear to you?" Meekly, I admitted

lems. Have I made that clear to you?" Meekly, I admitted that I had grasped the point.

"All right," continued Mr. Hower, "the same fundamentals hold good with oil. In an automobile the oil gets a chance to cool off, because the engine load is eased off constantly. Easy on the oil. An automobile engine's crankcase is continuously cooled by the road air as the car moves along. Marine engine crankcase is always hot. Buried way down where there is no air circulation. Result, oil always hot. Hard on the oil. "But the main thing is the constant pressure in a marine engine. That pressure—or load—is steady, with no let-up. Where down any oil unless that oil is made from the right crude, made properly, and designed for the work it is to do. Can't expect efficiency otherwise. An engine will run, so far as that is concerned, on practically any oil. Also, that engine will wear out, carbonize, loosen its bearings, pump its oil up past the pistons, pound and rattle and deteriorate very rapidly. The wear out, carbonize, loosen its bearings, pump its oil up past the pistons, pound and rattle and deteriorate very rapidly. The oil might be all right as far as quality goes, but if it hasn't the viscosity the engine calls for, if it can't resist beat on the cylinder walls, if it is too high in volatility, if it forms sludge under the severe requirements of marine service, then it is nothing less than an enemy of the engine.

"It takes time to design oils properly," added Commander Hower. "When Gar Wood came to us something over two years ago and asked us to make an oil for his engine; it took

years ago and asked us to make an oil for his engines, it took our people three months steady work to do the job thoroughly. We had to study the engine, test oils after running, check up the condition of the engine after dynamometer, runs, measure oil

condition of the engine after dynamometer, runs, measure oil consumption, check up mechanical efficiency, check up thermal efficiency, and then do it all over three or four times. When we were through, we had something and so did Gar Wood. "Same thing with Sterling, Gray, Buffalo, Peerless, Scripps, Kermath. Each engine had to be studied. Guess work doesn't go with us. Duplex success hasn't been built on that basis. Remember this company is entering its forty-fourth year of existence. That means something."

As I went through the Duplex plant I realized that guess

As I went through the Duplex plant, I realized that guess work, to use Mr. Hower's phrase, certainly doesn't go. The whole plant runs on a laboratory basis. Manufacturing is controlled from the laboratory by chemists. Once the standard is trolled from the laboratory by chemists. Once the standard is set for a certain oil, that standard is adhered to as carefully as in the manufacture of alloy steels. The tolerance in the Duplex plant are as close as in the machining of fine steel parts. Uniformity is absolute. And cleanliness! I believe in giving credit where credit is due, and it is no exaggeration to say that the Duplex plant is as scrupulously clean as a dairy. Buffalo people tell me it has always been that way.

I thanked Commander Hower for his information, and for the tour through the plant. As a parting shot he said "I mustn't forget to tell you that Duplex has the lowest carbon content of any high test oil in the —" But I put my fingers in my ears and jumped into the waiting taxi. I had had enough for one day. Just the same, I had found out what I wanted to know.

Two Strong Dealers for Dodge

Dealerships for the increasingly popular line of Dodge Watercars, manufactured by the Dodge Boat Works of Detroit, have been arranged with the Sawyer Motor Company of Asheville, North Carolina, and the Fred L. Gilbert Boat Company, of Brockville, Ontario. The Gilbert Company will represent Dodge Watercars on the Canadian side of Lake Ontario and the St. Lawrence, while the American side will be supervised by H. W. Skinner of Utica, N. Y., who has associated himself with the Hutchinson Boat Works of Alexandria Bay.